

LEMENTARY ECONOMICS

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HUMPHREY MILFORD
OXFORD UNIVERSITY PRESS

OXFORD UNIVERSITY PRESS
AMEN HOUSE, LONDON, E.C.4
EDINBURGH GLASGOW NEW YORK
TORONTO MELBOURNE CAPETOWN
BOMBAY CALCUTTA MADRAS
HUMPHREY MILFORD
PUBLISHER TO THE
UNIVERSITY

First published 1938

A companion volume
ELEMENTS OF CIVICS

By R. P. Patwardhan, M.A., I.E.S., will be published in August 1938

PRINTED IN INDIA
AT THE DIOCESAN PRESS, MADRAS—1938. C3955

PREFACE

THIS book, which is largely an abridgement of our *Introduction to Economics*, Part I, published two years ago, is designed to meet the demand for a textbook more elementary and limited in scope than the older work. It is specially adapted to meet the requirements of the Bombay University syllabus in Economics both for the Intermediate Arts and First Year Commerce students under the Bifurcation scheme. Indian examples have been given throughout and Indian conditions emphasized, in order to facilitate a quicker and surer understanding of the elementary principles of Economics. Summaries and typical questions have been given at the end of each chapter and are intended further to aid the student in studying a new subject and working out for himself some exercises.

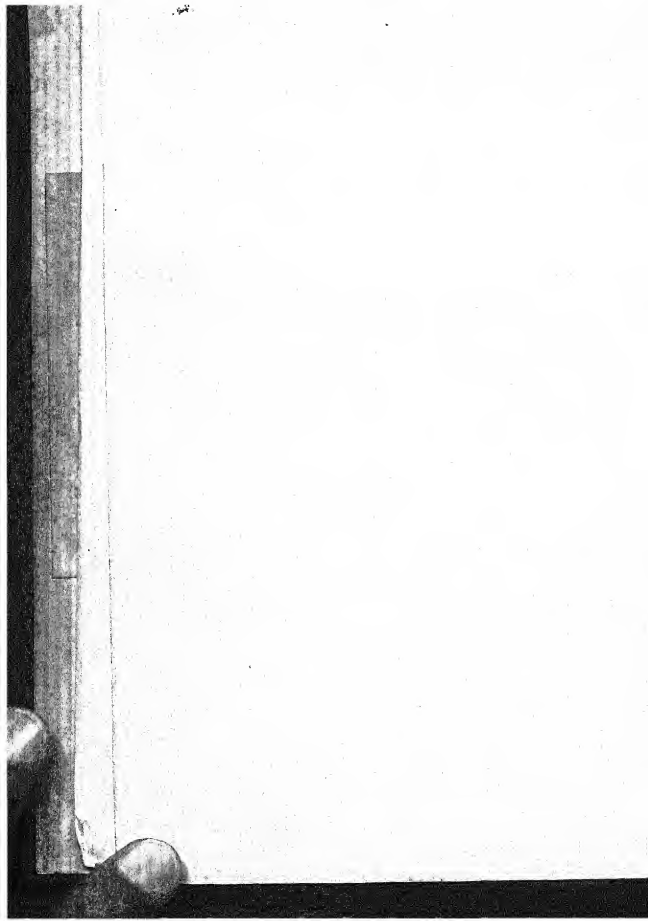
The syllabuses in Elementary Economics prescribed by the different Universities of India vary to some extent, but not greatly, and we hope that teachers in other Universities will find this book suitable for use in their Intermediate classes. We have constructed it in such a way that certain chapters can be easily omitted (for example, Chapter II, though necessary for students studying the Punjab University syllabus, may be omitted in other cases).

Bombay

June 1938

G. B. JATHAR

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Chapter I

INTRODUCTORY

§1. **Subject-matter of economics.** The Natural Sciences are those which deal with man's physical environment—matter, motion and energy—and include Astronomy, Physics and Chemistry. The Social Sciences are those which deal with man as a member of society. The relations that arise among men form the subject-matter of distinct social sciences such as Ethics, Politics and Economics (see §7 below). Ethics is concerned with what man ought or ought not to do. Politics deals with the relations of man and the State. And Economics is concerned with man's wants and his efforts to satisfy his wants.

'The starting-point of all economic activity is the existence of human wants. To satisfy hunger and thirst, to secure shelter and to provide clothing were the chief aims of primitive man and constitute even today the motor force of all society' (Seligman). Wants give rise to efforts and efforts secure satisfaction. In primitive society man lived by his direct efforts, growing his own food, putting up his own cottage and so on. But as his wants increased he came to depend more and more on the efforts of other persons for their satisfaction. He exchanged the surplus of what he produced for the surplus production of other men. The exchange was at first direct and gave rise to barter. Thus the farmer exchanged his grain with the weaver's cloth. But as exchanges became complex and frequent, a common medium of exchange, money, had to be introduced. The farmer, for example, first sold his grain for money and then with the money purchased cloth and other requirements. A complex social organization based on world-wide co-operation has thus resulted, and this forms the subject of Economics.

§2. **Definition.** Marshall defines economics as follows : 'Political Economy or Economics is a study of mankind in the ordinary business of life ; it examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of well-being. Thus it is on the one side a study of wealth, and on the other, and more important side, a part of the study of man.'

This definition serves to bring out two fundamental points, namely that (i) economics is a *social science*, that is, it considers man not in isolation, but as a member of a group ; and that (ii) it considers only that part of his activities which is related to the acquisition and enjoyment of *wealth*. Economics is thus concerned with the wants of man and the efforts made by him as a member of society for their satisfaction.

§3. **Is economics a science or an art?** Adam Smith did not draw a clear distinction between the study of political economy regarded as a science and the study regarded as an art useful to statesmen. Later writers have generally emphasized the character of economics as a science. This means that we are more concerned to discover laws (uniformities and sequences) than to lay down rules of conduct for statesmen or practical men of business. Our business is to *describe* more than to *prescribe*. Our standpoint is positive and scientific rather than practical or ethical.

§4. **Assumptions of economics.** In order to obtain exact results, hypothetical and abstract economists have used the conception of the Economic Man. It is assumed that the Economic Man always seeks pleasure and avoids pain ; that, for him, pleasure consists in the pursuit of wealth, and pain in doing the necessary work for obtaining wealth. Such a person is further held to be subject to *free competition*, and to move freely from place to place, and from one occupation to another, as directed by self-interest. Certain familiar statements which are laid down by economists follow from these simple assumptions ; for instance, the statements that labourers will move readily to places or occupations where they can earn the

highest wages, and that there can be only one price for the same commodity in a given market at any given time.

These assumptions are not entirely true. But they are sufficiently true to serve as starting-points, and that is why the conclusions drawn from them have been found by experience to be useful as guides to the understanding of economic phenomena. Whether we like it or not, we have to admit that there is no other motive which exercises such a powerful and continuous influence on human conduct as the economic motive. To the question whether this characteristic of human nature is not deplorable, the strait-laced economist has no answer as an economist. He will say: 'I am concerned with "what is" and not with "what ought to be"—with facts, not with ideals.' However, if pressed for an answer, he will say that the motive of economic betterment which wields such a universal power over civilized mankind, is not necessarily a selfish or ignoble motive. As Marshall puts it: 'Money is a means towards ends, and if the ends are noble, the desire for the means is not ignoble.' Again the desire for money does not exclude other influences such as the pleasure afforded to a person by work which brings him money, the desire to provide adequately for one's family, or motives of philanthropy.

The economist is, however, far from holding that human conduct is (or ought to be) under the sole dominion of the economic motive, and from time to time he finds it necessary to call attention to the fact that strictly economic conclusions require modification so as to allow due weight to the operation of other influences.

§5. Economic laws. The laws of all sciences are hypothetical or conditional. They state that, given certain conditions, certain results follow. The laws of economics are also similarly hypothetical or conditional. If the conditions are there, the stated consequences will follow. For example, if prices rise, demand will contract. It may, however, sometimes happen that even if prices rise, demand may remain the same as, or may even be greater than, before; and this may be due to the fact that demand

also has risen at the same time as prices. In order to draw attention to possible counteracting causes, we usually say in economics that such and such causes *tend* to produce such and such effects. Or the same object is served by adding a qualification to the statement of a law such as 'other things remaining the same'. All scientific laws are in this sense merely statements of *tendencies*. There is however, a sense in which economic laws differ from scientific laws proper. They are more liable to refuse to fit in with actual facts, because they deal with human behaviour, and since human beings (unlike natural forces) have a will of their own, we can never be quite sure that they will always react in a particular manner to certain given conditions. This element of uncertainty would have been very much greater if we had been dealing with the behaviour of *individuals*. But in economics we deal *not with individuals but with groups*, and it is possible to be more confident about the behaviour of groups than of individuals. For example, we may with some confidence say that the group demand for sugar will rise with a fall in its price, although we may not feel certain that a particular individual will buy more of it.

While, owing to reasons indicated above, economic laws are not so exact as those of the physical sciences, they *possess greater exactitude than the laws of the other social sciences*. This is due to the fact that the particular human motives with which economics is concerned are *measurable in terms of money*. Economic laws being *hypothetical* statements, must not be confused with statutory, moral, customary or religious laws, which are commands. Any citizen proved to have disobeyed a command of the State has to suffer the appropriate punishment. Economic laws, on the other hand, are not commands in this sense. They are in the indicative mood and not in the imperative mood. They do not say: 'Do this' or 'Do not do this', but assert that certain causes are followed by certain effects.

§6. **Principal divisions of economics.** Economics, as said above, deals with man in relation to wealth. In the complex economic organization of modern society the

activities of man in relation to wealth have to be studied from various points of view, namely, consumption, production, exchange, and distribution of wealth. These give us the four principal branches or divisions of economics. In view, however, of the important role played by modern States in the economic life of the community, the economics of government (including public finance) may be added as the fifth division of economics.

It is necessary to emphasize that all these divisions are interrelated and interdependent. Let us briefly indicate their nature.

(i) *Consumption of wealth.*—By 'consumption of wealth' we mean the use of wealth for the satisfaction of our various wants and desires for material and non-material things. Consumption is negative production. Just as man can produce only utilities, so he can consume nothing but utilities. Often consumption is nothing more than *usage*, as when we use furniture or houses or enjoy pictures.

(ii) *Production of wealth.*—Next follows the study of production of wealth. It is obvious that man cannot create matter any more than he can destroy it. He can, however, create *utilities*, which is a very different thing. This means that he can transform, adjust and arrange matter or materials supplied by nature so as to endow them with utility, i.e. to bring them into a condition in which they can be used for the satisfaction of his wants. Production therefore means the creation of utilities. (See ch. v, §1.)

(iii) *Exchange of wealth.*—Under the present economic organization no one is self-sufficient. Each individual is ordinarily dependent on others for the satisfaction of his needs, because each specializes in the production of some particular commodity or service. What he does not produce himself he must obtain from others in exchange for what he does produce. Exchange is thus a vital part of our present economic system. It deals with the reasons for which, the basis on which, and the methods by which commodities are exchanged for each other.

(iv) *Distribution of wealth.*—The apportionment of the wealth that is produced among the various factors of production that have collaborated in its production is called the distribution of wealth. Four principal shares are to be distinguished: (a) Rent, the share of nature or land, (b) Wages, the reward of labour, (c) Interest, the income of capital and (d) Profits, the remuneration of enterprise.

(v) *Economics of government.*—The abandonment of the *laissez-faire* creed, the growing range of the economic functions undertaken by modern States under socialistic influences, the complex problems of public finance in general and of war finance in particular, the increasing importance attached to economic planning by the State—all these considerations emphasize the need for a study of this branch of economics, which includes a study of the theory and practice of the economic functions of modern governments, the principles of taxation and public expenditure, public debt, etc.

§7. Relation of economics to other social sciences. Economics being a study of man (in relation to wealth) as a member of society, is closely related to other social sciences, such as politics and ethics.

(i) *Economics and politics.*—Since economic activity is carried on within the State, it is possible for the latter consciously to modify economic conditions by its policy and laws in relation to trade, taxation, labour conditions and land. On the other hand, economic conditions of production and distribution considerably influence the forms and functions of government. Thus the structure and the functions of the Government of a pastoral country are naturally quite different from those of a highly industrialized country. Finally, there are certain problems common to both the sciences (e.g. the problems of State industries, currency and taxation) though their viewpoints are different, the viewpoint of politics being administrative, whereas economics is concerned with wealth and economic efficiency. The wide extension of the economic functions of the State in recent times has increased the points of contact between economics and politics and there is a

better appreciation of each other's point of view on the part of the politician and the economist.

(ii) *Economics and ethics*.—The relationship between economics and ethics has been the subject of a prolonged and bitter controversy. Some writers have imagined a perennial conflict between economics and ethics. Writers like Ruskin have given many hard names to economics, calling it a 'bastard science of darkness', and a 'dismal science of "illth" rather than wealth'. The strictures of Ruskin and others apply to the old-fashioned economics which wrongly opposed beneficent legislation, like Factory Acts, in the name of economic laws, and not to economics as correctly expounded. Economics does not teach the love of money, but merely explains how all men are moved by the desire to live well and therefore to seek the acquisition of material objects essential for life. At the worst, the standpoint of economics may be regarded as unmoral (i.e. ethically neutral), but not immoral. Both being essentially social sciences studying the welfare of society, we obviously cannot divorce one from the other, and there is a considerable justification for the view that 'what is economically advantageous must in the long run be right, and what is correct in ethics must in the end also be profitable to the business world' (Seligman). Thus 'Honesty is the best policy' is as much a maxim of business as of ethics. Nevertheless we can never with profit conjoin the two sciences. For 'ethics is at once a science and an art: its function is to investigate the laws of morality and to formulate rules of conduct. . . . Plainly the scope of ethics is wider than that of economics' (Marriot). Economics, on the other hand, is mainly a positive science explaining economic facts and phenomena as they are, and as a rule not sitting in judgement on them.

SUMMARY

Economics is social science. Wants, efforts, and satisfactions constitute the essence of economics.

Economics is the study of mankind in the ordinary business of life, i.e. the business of acquiring and spending wealth. It is

concerned with man's activity as a member of society for the satisfaction of his needs.

In economics our primary business is to understand things as they are. We are not concerned with laying down rules of conduct for the individual or the nation. That is to say, *economics is more a science than an art.*

Economic reasoning is based on several *assumptions*. One of these is that of the *Economic Man*, supposed to be always moved by the motive of getting the maximum of wealth with the minimum of effort. These assumptions are not wholly correct but sufficiently correct, so that conclusions drawn from them are sufficiently valid.

The economist neither welcomes nor regrets the predominance of the *economic motive*. Nor does the economist hold that the economic motive or the motive of making of money is or ought to be the sole motive of human conduct. But in the main his arguments take it for granted that man is guided by his ideas of self-interest.

The laws of all sciences are hypothetical. *Economic laws* are not an exception to this rule. They are statements of *tendencies*. They state that certain effects will follow from certain causes in the absence of counteracting or modifying causes.

One special element of uncertainty is that the behaviour of men is uncertain. Fortunately, however, economics is concerned with the behaviour of *groups* of human beings, which is more calculable than the behaviour of *individuals*.

Economic laws are less exact than the laws of the physical sciences. But they are more exact than the laws of other social sciences, the reason being that economic motives can be measured by money.

The principal divisions of economics are Consumption, Production, Exchange, Distribution of Wealth and Public Finance.

These divisions, however, are more or less *closely interrelated* with one another, although economic analysis requires a separate treatment of each of them.

Consumption, i.e. the satisfaction of human wants through the use of wealth, is the ultimate aim of all economic activity.

By *production* we understand the creation of economic utilities for the satisfaction of man's wants.

Distribution.—The wealth that is produced by the factors of production is shared by them and goes out as Rent, Wages, Interest and Profit.

Economics and politics.—Economics is closely related to politics. While economic conditions are modified by the policy of the State, the structure and functions of the Government are in turn influenced by conditions of production and distribution. Lastly, both economics and politics have certain common problems, such as taxation and State industries, though the viewpoints of the two sciences are different.

Economics and ethics.—Some writers like Ruskin have condemned economics as a dismal science which is in conflict with ethics.

This charge is, however unfair. Economics does not inculcate the love of money, but merely explains how men are moved by the desire to live. Since both economics and ethics as social sciences are interested in the welfare of society, one cannot be divorced from the other. At the same time, complete fusion of the two sciences is to be deprecated.

QUESTIONS

1. What is Economics? Is it a science or an art or both?
2. Discuss the assumptions underlying Economics.
3. Explain the distinction between an economic law and statute law and show how all economic laws are mere statements of tendencies.
4. Explain the usual divisions of the subject-matter of economics.
5. Examine the relation between economics and other social sciences.

Chapter II

STAGES OF ECONOMIC DEVELOPMENT¹

§1. Earlier stages of development. The following usual classification of the stages in economic development is helpful, especially for the understanding of earlier economic life: (i) the Hunting stage; (ii) the Pastoral stage; (iii) the Agricultural stage; (iv) the Commercial stage; and (v) the Industrial stage (Seligman).

In the remote past savage man lived on wild roots and fruits, and in many cases practised cannibalism. The root-grubbing stage was followed by the hunting stage, the transition being facilitated by the abundance of game and the use of weapons, as civilization progressed from the early Paleolithic to the New Stone age, and later to the Bronze and Iron ages. The invention of fire and the employment of metals led to an immense improvement in tools and weapons—arrows, knives, javelins, hammers, mill-stones, daggers and saws. The hunting tribes would constantly move from one game area to another as the older areas were exhausted.

With the growth of population, the need for a less precarious and more abundant food supply was felt, and domestication of animals partially took the place of destruction of animals by hunting. The pastoral stage was thus ushered in. The tending of flocks of sheep and herds of cattle was now extensively practised to secure a more permanent supply of food, and incidentally to obtain clothing and transport facilities.

The transition to the agricultural stage was gradual. Side by side with the domestication of wild animals, we have domestication of wild plants, and in course of time

¹ This chapter is intended to meet the requirements of the Panjab University syllabus in Intermediate Economics, and may be omitted in other cases, unless specially prescribed.

agriculture appears with regular cultivation of land and settled abodes. Growing supplies of food made it possible to support a larger population on a given area of land. Land was held in communal ownership, but houses and moveables were the property of the family, which now emerged as the self-sufficing social unit—the basis of the later self-sufficient village community.

No dogmatic statement can be made regarding the exact chronological sequence of the various stages of economic development. Sometimes the commercial stage followed and at other times preceded the agricultural stage. The agricultural stage was not altogether superseded by the later commercial and industrial stages, although of course it was greatly modified.

Instead of laying down any invariable order in which one stage follows another, it is more instructive to study economic development, especially in its later stages, from the fundamental point of view of the relation between producer and consumer. This involves the study of the improving technique of production, the growing division of labour, the widening of the markets, and the introduction of money and credit economy.

§2. **Stages of industrial evolution.** Turning now to the later stages of economic development we may roughly distinguish four successive stages of industrial evolution: (i) Family Economy; (ii) the Guild or Handicraft System; (iii) Domestic Industry; and (iv) the modern Industrial or Factory System (Capitalist or Industrial Economy).

(i) *Family Economy.*—In Europe, broadly speaking, until the beginning of the Middle Ages the self-sufficing family system prevailed. The family unit, which was generally large and often included slaves and serfs, produced all that it wanted and consumed all that it produced. Thus the family raised its own food, made its own clothing, put up its own houses, and met its other needs from its own resources.

(ii) *The Guild (Handicraft) System.*—Gradually the self-sufficiency of the family broke down, and a body of professional craftsmen came into existence. The various

craftsmen like the smith, the cobbler, the carpenter, the potter, and the weaver, began to work in their own houses with their own tools and on their own raw materials, and disposed of their goods in their own shops. Production in this stage is still on a small scale and there is as yet no intermediary between producer and consumer, the market being small and near at hand. An important feature of the handicrafts system was the association of the members of a trade or occupation into crafts or merchant guilds with their apprentices, journeymen and master-craftsmen. These guilds regulated the quality of the products and their price, and also looked after the welfare of their members. This is the famous guild system which flourished in Europe in the Middle Ages. In India also, the various caste groups, or caste *panchayats*, for a long time performed functions similar to those undertaken by the European craft guilds.

The guild system gradually broke down as commerce began to extend towards the close of the Middle Ages and distant markets had to be catered for. Another cause of its decay was the abuse of their monopoly and privilege by the richer guilds.

(iii) *The Domestic System*.—‘The next stage is marked by the advent of various kinds of commercial middlemen, who act as intermediaries between the actual workers in their small domestic workshops and the final purchasers; the widening of the market being both the cause and the result of their appearance.’¹ The workman partially lost his economic independence, since although he still continued to work in his house (hence the name ‘Domestic System’) he was now supplied with raw materials by the employer, who also disposed of the finished product. This was the prevailing type of industrial organization before the Industrial Revolution in England about the middle of the eighteenth century. In India, the domestic system of industry still largely survives, though it is being gradually displaced by the

¹ Sir W. J. Ashley, *The Economic Organization of England*, p. 36.

factory system. The domestic system is still prevalent in certain trades, such as weaving and hosiery.

(iv) *The Factory System*.—The Industrial Revolution, the advent of machinery, large-scale production and world-wide markets—all these are closely connected with the establishment of the factory system which is the typical form of modern industry. The capitalist employer now acquires complete control over the industry, which is conducted in his own workshop or factory with the help of hired labour. The workman is now reduced to the position of a mere wage-earner, providing only the labour-force in return for a fixed wage. Perhaps the most important feature of the factory system is production in anticipation of demand. We have also a very complex division of labour and the rule of competition instead of custom. Also, barter has been displaced by a money and credit economy and markets have become national and international in scope.

§3. Meaning of 'Industrial Revolution'. The last stage in economic development is compendiously described by the term 'Industrial Revolution'. This term is used to indicate all those changes in the conditions of life and labour brought about by the application of power to industry and transport, and the consequent substitution of the factory for the older domestic system, the introduction of new methods of production and of transport, and generally the progressive control over the forces of nature, which have been made to yield increasing quantities of wealth as well as more and more varieties of it. The period of English economic history covered by the Industrial Revolution roughly extends over a century, from 1750 to 1850.

While the Industrial Revolution in England involved great changes in social and economic life, it was a gradual process. The Industrial Revolution first made its appearance in England because of certain favourable physical, social and political conditions, but subsequently other countries passed through it with more or less similar results. It is thus a world-wide phenomenon. It may be said to have started in India since about the middle

of the nineteenth century and we are today passing through a stage of economic transition marked by a mixture of the old and new economic orders.

§4. **England before the Industrial Revolution.** Before the Industrial Revolution in England, the conditions of economic life in agriculture, industry, trade and transport were not unlike those prevailing in India in the beginning of the nineteenth century. England was then mainly an agricultural country, and both agriculture and industry were carried on on a small scale by yeoman and artisan. The transport system was primitive, and enforced a life of self-sufficiency on the local units. Trade was not much developed and the bulk of the internal trade was conducted at weekly markets and fairs.

§5. **Main aspects of the Industrial Revolution in England.** The English Industrial Revolution had three main aspects, namely revolution (i) in Agriculture, (ii) in Transport, (iii) and in Industry.

(i) *Revolution in agriculture.*—The change began in agriculture. The old wasteful common field system was supplanted by a new system of land tenure and a much more efficient agriculture, using new crop manures and implements thanks to the advance in agricultural science. Land was enclosed; but the Enclosure Movement resulted in the disappearance of the yeomanry and the emergence of a class of landless labourers and of capitalist tenant farmers employing them.

(ii & iii) *Revolution in transport and industry.*—The Industrial Revolution manifested itself also (a) in the improved means of communication, such as turnpike roads and navigable canals, (b) in the introduction of a variety of inventions in the coal, iron and textile industries [notably Hargreaves' Spinning Jenny (1770), Arkwright's Water Frame (1769), Crompton's Mule (1779), Watt's Steam Engine (1769) and Cartwright's Power-Loom (1785)] and (c) in the establishment of the factory system, which involved production on a large scale and extensive use of machinery in place of human labour. About 1825, started another revolution in transport methods and communication, which in the fulness of time brought the

railway, the steamship and the telegraph. This further transformed the economic life of England, which soon came to depend upon the exchange of her mineral wealth, manufactured goods and shipping services for food-stuffs and raw materials imported from abroad.

§6. Results of the Industrial Revolution. Such far-reaching changes in the technique of production and economic organization could not fail to produce striking results, both desirable and undesirable.

(i) In the first place, there was an immense increase in the production of wealth, a vast extension of internal and external trade, and expansion of credit and banking.

(ii) Secondly, the position of the population of England underwent fundamental changes. There was a rapid increase in total numbers as also a tremendous movement

of the population from the south to the midlands and the north, which became now the beehive of modern industry. There was also a big increase in the urban population.

(iii) Thirdly, there were fundamental changes in the social and economic organization of the country, with the balance of social and political power turned in favour of the capitalist classes, to the detriment of the working classes, both in industry and in agriculture.

(iv) Fourthly, domestic industry was supplanted by the large-scale factory with its thousands of 'hands' (factory labourers). They were connected with the capitalist by no other bond than the cash one, which took the place of the old human relations between master and workmen.

(v) Fifthly, the concentration of capital and the instruments of production in the hands of a small moneyed class led to the divorce between the working and owning classes, and split society into two hostile camps at war with each other.

(vi) Lastly, the insecure and precarious life of the labourer living under an ever-present threat of unemployment, the frequent strikes and lockouts throwing society out of gear, and the dislocation of the economic equilibrium due to recurrent crises, came to be the features of the new industrial order, and society was faced with new and complex social, political and economic problems.

In short, the Industrial Revolution created the new

problems of wealth without welfare and of economic instability, which are yet far from being solved.¹

SUMMARY

Economic life is the outcome of a prolonged process of evolution. The earlier stages of economic development are the 'root-grubbing' stage, the hunting stage, the pastoral stage, the agricultural stage, the commercial stage and the industrial stage.

The later development of economic life takes us to the several stages of industrial evolution.

First we have the *Family Economy*, under which the family unit produced everything it wanted and itself consumed everything that it produced.

Secondly, we have the *Handicrafts System* under which a body of professional craftsmen or specialists came into existence. They supplied the needs of the local market. An important feature of the handicrafts system was the association of members of an occupation in guilds.

The next system, known as the Domestic System, was marked by the advent of various kinds of middlemen who appeared as capitalistic employers of the craftsmen toiling in their small domestic workshops, now separated from the final purchasers.

The last stage is ushered in by the appearance of the *Factory System* after the Industrial Revolution with its machines, its large-scale production and its world-wide markets. The semi-autonomous worker was transformed into the factory wage-earner. Production now is in anticipation of demand. And the division of labour becomes very complex.

The establishment of the factory system was the result of the *Industrial Revolution* which first occurred in England and roughly covered the period from 1750 to 1850. The Industrial Revolution completely transformed conditions of economic life.

In *agriculture* the wasteful common field system with its dispersed holdings gave place to a more efficient system, but this involved the disappearance of the old yeoman class.

There was also a rapid improvement in the system of *transport and communication*. Better roads and canals, and later the railway, the steamship and the telegraph—all these enormously widened the scope of internal and international commerce.

The introduction of a *variety of inventions* in the coal, iron, and textile industries, joint-stock companies, the development of credit and banking, were some of the factors which made England the workshop of the world.

The *results of the Industrial Revolution* in England were: (i) an immense increase in prosperity; (ii) a rapid increase of population

¹ Modern factory or labour legislation, which seeks to remedy some of the evils of the present system, is dealt with in ch. xii.

and a great shifting of it from the south to the midlands and the north; (iii) the concentration of political and social power in the hands of the capitalistic class and a lowering of the status of the worker in agriculture as well as in industry; (iv) the substitution of large-scale production for the domestic-industry type of production; (v) the splitting of society into two hostile camps, the owning employer class and the wage-earning class; and (vi) added insecurity of the economic life of the worker, industrial disharmony and recurrent economic crises.

QUESTIONS

1. Review the early stages of economic development.
2. Discuss the main stages of industrial evolution and bring out the characteristic features of each one of them.
3. Compare the domestic system with the factory system. To what extent does the former system exist in India?
4. Discuss the main features of the Guild system and compare it with the caste *panchayats* in India.
5. What is meant by the expression 'Industrial Revolution'? Describe the main inventions that brought about the Industrial Revolution in England and show how it is almost a universal phenomenon.
6. Review the course of the Industrial Revolution in England.
7. Clearly bring out the social and economic effects of the Industrial Revolution.

Chapter III

GENERAL NOTIONS

§1. **Utility.** In this chapter it is proposed to explain some general notions of Economics, namely, Utility, Wealth, Value, Price and Income.

Utility is the capacity to satisfy a human desire or serve a human purpose. From a moral point of view it is a colourless word. When we say a certain object has utility, we do not mean that it *ought* to be valued. We simply refer to the fact that, rightly or wrongly, it is valued, that people desire to possess it.

All utilities are not economic, i.e. are not wealth. Utilities like air and light, which are given free by nature and in unlimited quantities, however vitally useful they may be and although recognized as such by human beings, are nevertheless not wealth.

§2. **Characteristics of wealth.** Let us enumerate the characteristics of wealth :

(i) In the first place it *possesses utility.*

(ii) Secondly, it is *limited in quantity.* (Because it is as a general rule the result of human labour ; and human labour as well as the natural resources on which it operates to produce wealth are limited. There are a few cases of wealth (e.g. meteoric stones) where human labour or sacrifice is not involved but where the term 'wealth' is justified because of the presence of other characteristics like limitedness of quantity and utility.)

(iii) Thirdly, *wealth is transferable.* It is not necessary that it should be bodily shifted, but at least the right to it should be transferable. For example, a house cannot itself be transferred, but the right to it can be. Wealth thus possesses exchange-value. (See §8 below.)

(iv) *Wealth should be capable of being appropriated.* That is, one person should be able to possess or enjoy it, to the exclusion of others. Unless it can be made the subject

of private property, nobody will pay anything for it, that is, it will possess no exchange-value:—

There is nothing in our definition of wealth to suggest that it consists only of *material* things. The *services* of a servant or labourer for which wages are paid, the services of a manager or official for which he gets a salary, the professional services of a lawyer and doctor for which fees are paid, are all wealth. So are the services of a singer whom you have to pay to hear.

A man's *internal qualities and aptitudes* (e.g. the special skill of a surgeon or the singer's vocal chords) are *not wealth*, because although they may be a source of wealth they are not themselves transferable.

Non-material external goods consisting of relations beneficial to a man with other people are wealth because they can be bought and sold. Thus when a business changes hands, very often the sale price includes not only the value of the tangible assets but also the value of what is known as the 'goodwill' of the business, which consists of the advantage which the business has acquired and the probability of continued custom owing to the reputation already established.

§3. Classification of wealth. The following classification is given by Marshall.¹ It will assist the student in clarifying his ideas.

| | | | |
|-----------|--------------|----------|---|
| Goods are | i. External | material | Transferable (house, furniture). |
| | | | Non-transferable (sunlight, climate). |
| | personal | | Transferable (goodwill of a business). |
| | | | Non-transferable (i.e. that part of a person's business connexion which depends on personal trust in him). |
| | ii. Internal | personal | Non-transferable (i.e. a person's qualities and faculties for action and enjoyment, e.g. business ability, professional skill, etc.). |

¹ A. Marshall, *Principles of Economics*, p. 55.

§4. **Wealth of an individual.** We may now proceed to suggest an answer to the questions (i) what is the wealth of an individual? and (ii) what is the wealth of a nation.

The *wealth of an individual* comprises the following principal items:

(a) In the first place, there are the material possessions exclusively owned by the individual, such as his house and farm, furniture and books. These are of course all transferable and exchangeable.

(b) Secondly, we have those non-material goods belonging to an individual which are external to him and which enable him to acquire material goods, e.g. his business or professional connexions, and especially that goodwill of his business which can be transferred by sale to a newcomer.

(c) Finally, a man enjoys certain goods in common with his neighbours. They do not belong to him alone. These include the right to make use of public property and institutions—such as roads, street lights, public parks and museums. We are thus led to consider collective, national, or social wealth.

§5. **National or social wealth.** The wealth of a nation includes the aggregate wealth of its members and citizens as defined above. National wealth also includes *public* material property of all kinds, such as roads, canals, buildings. Some economists like Marshall include for many purposes some of the more important free gifts of nature which influence national wealth. So the Thames may be regarded as part of England's wealth and the Ganges and the Himalayas as part of India's wealth.

It is clear that the mere aggregate wealth of a nation affords no indication of its prosperity. The aggregate wealth of India is greater than that of Belgium, but the wealth or income *per head* is greater in Belgium than in India, and therefore Belgium is a richer country than India. The per head share of the national wealth (or income) is obviously the truer standard of material happiness.

§6. **Wealth and welfare.** The relation between wealth and welfare is close; indeed originally wealth meant

of well-being or welfare. The conception of welfare however is very elastic and varies according to the ethical, political and æsthetic outlook of each person.

Wealth and welfare correspond to each other to a great extent. Under the present economic system the relation between them is obscured by the fact that much of modern production is undertaken for profit and not for the direct satisfaction of the producer's own needs. It is clear, however, that production is the means and consumption or enjoyment or gratification of the consumer is the end. Other things remaining the same, increased production means a higher standard of living (see ch. iv, §7) and increased welfare. Every person who works under the influence of the economic motive is interested in securing the highest possible welfare of himself and of his family.

Wealth and welfare, however, diverge from each other in the following cases.

In the first place, since wealth in Economics means economic goods (which are the result of labour and are exchangeable) and excludes free gifts of nature, it omits to take into account vital elements of welfare such as air, sunshine, climate and water. This omission however is not very serious, since under modern conditions the bulk of material welfare is derived from wealth or economic goods.

Secondly, economists taking a strictly neutral view of utility have to admit such goods as alcohol, opium and noxious drugs into the category of wealth. Obviously, however, they must not be taken thereby to approve of the consumption of these commodities. It is perfectly consistent to regard alcohol as wealth while at the same time supporting a campaign against its consumption.

Thirdly, the production of wealth may involve great sacrifice of welfare. For example it may mean sweated labour, slums, long hours of work, insanitary conditions of factories and so on. In England during the early phases of the Industrial Revolution the working classes were subjected to untold suffering. There was a great deal of new wealth but the human costs were terrible.

Lastly, the manner in which wealth is distributed is an important factor governing the material welfare of a society. Grave inequalities of wealth prevent the attainment of maximum welfare.

The State as the best representative of the community can greatly extend social welfare by appropriate action. It can for instance lay down certain standards regarding hours of work and conditions in factories. It can prescribe a minimum living wage, and provide for a national system of insurance against unemployment, sickness, accidents, old age, etc. Finally, by imposing progressive taxation on the rich and spending the money so as to supply amenities of life to the poor, such as education, medical relief, public parks, museums and reading rooms, the State can minimize the adverse effects of inequality of wealth and incomes on the material welfare of the community.¹

§7. Income. The concept of wealth leads to that of *income*. Income means a flow or stream of satisfactions. Income psychologically and fundamentally means *pleasure* or *benefit income*, but because nowadays we are all living under a system of money economy and exchange, income has come to mean primarily *money income*. If a person is engaged in business, his net or true income is found by deducting from his gross income 'the outgoings that belong to its production'. Services rendered to oneself, e.g. ironing one's own clothes; or services rendered to one's family, like those of the housewife, are not included in this income, since they are free. The *real income* of a person as distinguished from his money income consists of the goods and services available to him for consumption or satisfaction of his needs.²

§8. Value. The concept of value is ultimately connected with that of wealth. Value is the central concept of economics as well as its greatest puzzle.

The term 'value' is ambiguous. It is sometimes loosely used to signify utility. When we talk of *value-in-use* we

¹ The subject is further discussed in chs. xii and xiii.

² The concept of National Income or Dividend is discussed in ch. xi.

mean the actual satisfaction, which may vary from individual to individual. Strictly speaking, however, in economics we ought always to use the term 'value' in the sense of *value-in-exchange*. The concept of exchange-value dominates the whole of our science, as we are living under a system of constant exchange or interchange of wealth or possessions. The exchange-value of one thing in terms of another at any given time and place is the amount of the second thing which can be had there and then in exchange for the first. It means its rate of exchangeability. Exchange-value is the measure of the *social* estimates of goods arrived at by transferring them in exchange.

§9. Price. Since exchange-value means relative exchange power we can measure the value, say, of a house in terms of any other commodity, like cows, sheep, rice or salt, and we may say that its exchange-value is 10 cows, or 100 sheep, or 5 maunds of rice, or 500 maunds of salt. We are, however, no longer living under a system of barter (direct exchange of goods for goods). Exchange is now effected by money (gold or silver coins or notes), that is by a common medium of exchange, which also functions as a common measure of values. This leads us to the conception of *price*, which is defined as exchange-value expressed in terms of money. Thus we may say that the price of a house is Rs. 500, or that of a coat is Rs. 10, or of a pen, As. 2, and so on. If we know these prices, we also know their relative values. Thus we can say that the value of the house is 50 coats, or fifty times as much as that of a coat.

§10. Value and utility. While no article can possess any value unless it has utility, the two terms must be carefully distinguished. The concept of value is more complex than that of utility. In the first place, value is a relative notion of the same order as weight or size. It necessarily implies a comparison between two or more objects and expresses a relation between them at a particular place or time. Utility is a simpler concept, and it does not imply comparison between one object and another. In the second place, value implies scarcity, i.e. insufficiency of quantity in relation to demand, or

difficulty of acquisition. That is why air, while it has infinite utility, has no value since it is unlimited in supply, while articles like gold or a diamond, which are scarce in relation to the demand for them, command a high value in exchange. This was what the old economists had in mind when they said that air has great value-in-use (i.e. utility) but no value-in-exchange.

SUMMARY

Utility means the capacity to satisfy a human desire or serve a human purpose. Things possessing this capacity are called 'utilities' or 'goods'.

Utilities are divided into:

(i) 'Free utilities' and (ii) 'Economic utilities' or 'Wealth'.

Wealth possesses the following characteristics:

(a) It has utility. (b) It is limited in quantity, and is generally the result of human labour. (c) It is transferable, or exchangeable. (d) It is capable of being appropriated.

Wealth consists of *material as well as non-material external goods*.

Individual wealth must be distinguished from *national wealth*.

Individual wealth comprises:

- (i) The material possessions of the individual,
- (ii) his external, transferable *non-material* goods (like the goodwill of a business), and
- (iii) his *share* of common goods like public parks.

National wealth:

(i) But such common material property *as a whole* is part of collective or *national wealth*.

(ii) The wealth of a nation also includes the aggregate wealth of its citizens.

(iii) Gifts of nature—like the Ganges—are the *basis* of the national wealth.

There is a close connexion between *wealth* and *welfare*. But this statement is subject to the following qualifications:

(i) There are some 'free' goods which are not wealth but which are essential for welfare.

(ii) Some goods coming within the definition of wealth may actually hinder welfare.

(iii) In considering wealth as a cause of welfare, on the debit side we must count the human costs.

(iv) Welfare depends not only on the quantity of wealth but on how it is distributed.

The State can by appropriate labour legislation and progressive taxation greatly extend social welfare.

Income fundamentally means pleasure income, but in practice has come to mean money income.

Value is a central concept of economics. By 'value', in economics, we mean 'value-in-exchange', that is, the power of getting in exchange other commodities.

Value expressed in terms of money is called '*price*'.

The concept of value is more complex than that of utility, and is of the same order as weight or size. Value expresses a relation and implies scarcity, or difficulty of acquisition.

QUESTIONS

1. Define utility. Bring out the distinction between free utilities and economic utilities.
2. What are the fundamental characteristics of wealth?
3. Examine Marshall's classification of goods, and discuss each category, giving appropriate illustrations.
4. Distinguish between individual and national wealth. Give Indian examples.
5. Make as complete a list as possible of the items of the wealth of (i) a farmer; (ii) an artisan; and (iii) a millowner in India.
6. Discuss the relation between wealth and welfare.
7. Explain the concept of income.
8. Distinguish between value-in-use, and value-in-exchange.
9. Explain the distinction between (i) value and utility; (ii) value and price.

Chapter IV

WANTS AND THEIR SATISFACTION

§1. **Consumption the end of all economic activity.** The existence of human wants is the starting-point of all economic activity, and the satisfaction of human wants, i.e. consumption, is the end of all economic activity. All wealth that is produced is sooner or later consumed. Production is justified not in itself but only in so far as the wealth that is produced is consumed. Production is subordinate to consumption, because it is the means, while consumption is the end. We have already explained what is meant by consumption. (See ch. i, §6.)

§2. **Human wants and their characteristics.** The great characteristic of human wants is that there is no limit to them. *The insatiability of human wants in general* has always been one of the principal themes of the preacher and the moralist. When we have got one thing, we desire to possess something else, and then a third thing, and so on indefinitely. Every step in human progress is marked by a growth in the number and variety of wants.

Although wants in general are insatiable, with very few exceptions *every single want is satiable sooner or later.*

Wants may sometimes be *complementary* and joined together: for example, desire for tea involves at the same time desire for milk and sugar. Another instance is desire for things which are sold in pairs like shoes, one shoe being useless without the other.

Many wants are such that their satisfaction can be secured by making use *alternatively* of more things than one. Thus the desire for a mild stimulant may be satisfied by tea or coffee. The desire for amusement may be satisfied by the cinema or perhaps by a novel. Wants are thus *competitive*.

§3. Law of Diminishing Utility. The fact noted above that each single want is completely satiable sooner or later has given rise to the familiar statement known as the Law of Diminishing Utility. Marshall expresses it thus: 'The *total utility* of a thing to anyone (that is, the total pleasure or other benefit it yields him) increases with every increase in his stock of it, but not as fast as his stock increases.' In simple language all that this means is that the more of a thing we have, the less we want it.

The Law of Diminishing Utility holds good for all kinds of satisfaction but subject to certain limitations:

Up to a point every addition may yield not decreasing but increasing satisfaction. To a very thirsty man, for example, an excessively small quantity of water will bring a greater craving for water and for some time every addition will be attended with greater and greater satisfaction.

It is assumed that the units are consumed in quick succession. If a man has drunk glass after glass of water until his thirst is fully assuaged, he will refuse to drink more for the time being. But this does not mean that he will equally refuse it after the lapse of a considerable interval, when he may be thirsty again.

The Law of Diminishing Utility is best explained by a diagram (Fig. 1). The equal divisions along the horizontal axis OX represent equal successive units of a commodity, say apples, consumed or purchased by a person, while the equal divisions along the perpendicular axis OY represent equal units of satisfaction. Rectangle I represents the utility derived from the first apple, rectangle II the utility from the second, and so on. The utility from every additional unit may be higher and higher instead of lower and lower for a time, so that the curve may at first slope upwards as in the diagram (I.U.), but sooner or later it steadily begins to diminish (from utility 10 of the second unit to utility 0 in the case of the seventh unit, which is on the border-line between utility and disutility). Any further increment of the supply will only result in disutility or, negative utility (the shaded rectangles in the diagram).

Let us assume for the sake of clarity that each unit of satisfaction to the consumer is represented by one anna. Then if the price of an apple were 3 as. the consumer would just be induced to purchase the sixth apple, whose

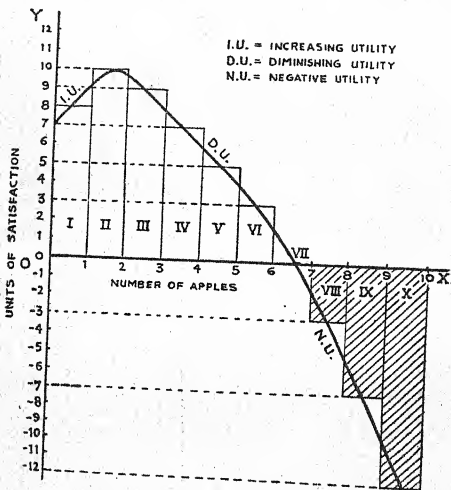


FIG. 1.—DIAGRAMMATIC REPRESENTATION OF THE LAW OF DIMINISHING UTILITY

utility, 3 units (which will just balance the utility of the price paid, 3 as.), will be the marginal utility, while the total utility of the supply of six apples will be $8+10+9+7+5+3=42$ units.

§4. Distinction between total and marginal utility. We must carefully distinguish between total utility and marginal utility. *Total utility* means the aggregate utility of a stock of similar goods, while *marginal utility* means the utility attaching to a particular portion of it, to the unit of it that is consumed last. The total utility of a stock is obtained by adding the utilities of all the units concerned. Thus in Fig. 1 the total utility (or satisfaction) obtained by consuming six apples is $8+10+9+7+5+3=42$ units. The *total utility* of a stock of goods increases with the addition of every unit, but it increases at a diminishing rate until the point of satiety is reached, and thereafter it falls. The *marginal utility* means the addition made to the total utility by the addition of the last increment consumed. Thus if our consumer thinks it just worth his while to buy the sixth apple, the utility of that unit, namely 3, is called the marginal (or final) utility. The utility is called marginal because at that point the consumer is on the margin of doubt as to whether it would be worth his while to consume any more of the commodity or whether he would secure greater satisfaction by consuming something else. The last unit consumed under any given set of conditions is the marginal unit.

Another point that must be made clear is that the utility of every unit in a given aggregate is the same and is equal to the marginal utility. Let us suppose that the six apples in our example are labelled *A, B, C, D, E* and *F*. All the apples, it must be remembered, are of exactly the same size and quality. Let us suppose now that one of them, *A*, is lost. In that case, the five that remain will yield utilities as in the example. The first one that is consumed will yield utility 8; the second one 10; the third one 9; the fourth one 7; and the fifth one 5. If a sixth had been there the additional utility realized would have been 3. Thus by losing any one of the apples *A, B, C, D, E, F* the loss of utility incurred will be 3. Therefore, the utility of every single one of these apples considered as one of an aggregate of six is the utility of the marginal, i.e. the sixth unit. If we consume something up to the

point of complete satiety, its marginal utility will sink to zero.

§5. The relation between marginal utility and value or price.

When we speak of the value of a commodity, we do not think of its utility or usefulness in general, but of the utility of a definite quantity. As has just been explained, the utility of every unit of a given quantity of a commodity is equal to its marginal utility, since all the units are interchangeable and alike and any one of them can be considered to be the marginal unit and will be parted with on the same terms as any other. Value then is not the expression of utility in general, or even of total utility, but of marginal utility. Thus air in general has infinite utility and great total utility, but does not command any value, since owing to its unlimited stock it (i.e. any particular unit of it) has zero utility. On the other hand, gold possesses great value, since although its utility in general or total utility is less than that of air or water, its marginal utility (the utility of a particular unit of it) is very high owing to its limited supply. Utility is an essentially subjective concept. But the only way we know of measuring it is by the price which a person is willing to pay for a thing he desires to buy or consume. The objective test of satisfaction is the readiness to pay a certain price or amount of money. The price which a person actually pays for a thing measures its marginal utility to him. Marginal utility and price are thus closely connected with each other.

§6. Classification of wants. Wants (or the things that satisfy them) are classified into (i) Necessaries, (ii) Comforts, and (iii) Luxuries.

(i) *Necessaries*.—We may take a rigidly narrow view of necessities, and include under the term only such things as are absolutely necessary for holding body and soul together (*necessaries for life*).

A broader view would include such additional things (*necessaries for efficiency*) as are required not only for bare existence but for maintaining efficiency, which would, for instance, mean sufficient food of reasonably nutritive value for the labourer and his family, satisfactory shelter and

clothing, provision for sickness and old age, and opportunity for giving the labourer's children the training requisite to start them in life at least as well as himself.

Under *conventional necessities* we include items not strictly necessary for efficiency but expenditure on which is nevertheless incurred because it is dictated by social convention. In India important items under this heading are expenses on caste dinners, marriage and funeral ceremonies.

(ii) and (iii) *Comforts and Luxuries*.—Comforts and luxuries are terms which seem to explain themselves.¹ The dividing line between comforts and luxuries is, however, not always clear. Whether a thing is a comfort or a luxury depends on how well-off a man is and what particular class of society he belongs to. To a poor peasant butter and ghee are luxuries. To the middle-class man on the other hand they are comforts, if not necessities. If an ordinary cultivator used scents (*attar*) they would be regarded as a luxury in his case; not so, however, in the case of a big zamindar.

Sometimes things that we call comforts are found to have an even greater hold on people than necessities. Many a labourer, for example, would stint himself in the matter of food rather than forgo his customary indulgence of tobacco, *pan* and betel-nut.

§7. Standard of living (or standard of comfort). The aggregate of necessities, comforts and luxuries to which a class of people have been accustomed, is spoken of as their 'standard of living'. Wants when repeatedly satisfied over a sufficiently long period pass into habits, and the standard of life thus formed becomes characteristic of an individual and of the class to which he belongs. Different classes have different standards, and each class comes to look upon certain things as constituting the normal requirements of its everyday life. Each class strives to

¹ 'Comforts are those things which add appreciably to a person's efficiency, but in a degree that has less value than their cost. Luxuries are things which when consumed do not appreciably add and may even detract from a person's efficiency.'—S. J. Chapman, *Outlines of Political Economy*, p. 60.

attain its particular standard, and having attained it to keep it up and if possible to raise it. The standard of life is not rigidly fixed. It varies not only from nation to nation, from class to class, from individual to individual, but also from one period to another with the same individual or class or nation. Diverse forces, such as financial circumstances, habit, education, imitation—deliberate and unintentional—and ambition influence the standard of living. Thus the present standard of living in England is much higher than it was in the eighteenth century, and is higher than in India today. By his desire to maintain this standard of living the English workman is led to resist by organized action proposed cuts in his wages, or to enhance his efficiency, or again to restrict the size of his family. Thus the standard of living exercises a far-reaching influence upon the worker and has a deep social and national significance.

The standard of living in India is very low, especially in the rural areas. Though it is not possible to generalize owing to the great variety of standards of consumption greatly influenced as they are in India not only by economic conditions but also by religion and caste, there can be no two opinions regarding the general low standard of living. The food eaten by the average Indian is not only inadequate, but it is poor in nutritious qualities. He is also badly clothed and housed, badly taught and doctored. He knows hardly any luxuries except the luxury of extravagant expenditure on a few occasions in his life—marriages, pilgrimages, social feasts, etc. But during the greater part of his life the bulk of his income is absorbed by the bare necessities of life. The ideas of people, especially of those living in towns, regarding the necessary minimum standard, are gradually changing under modern influences, and the desire to raise the standard is slowly becoming effective, although the recent economic depression, which fell with particular severity on primitive agricultural countries like India, has checked the improvement in the standard of living.

§8. Engel's Law of Family
interest to ascertain the pro

(i) classes of society distribute their expenditure between necessities, comforts and luxuries. In this connexion, we may mention the generalization known as Engel's Law. This law states that the smaller the income the larger the percentage of it spent on food and subsistence. Ernst Engel was a German statistician who lived about the middle of the nineteenth century; he studied a large number of family budgets (i.e. lists of items of the expenditure of families) of different classes of people in Saxony and laid down the following propositions:

As the income of the family unit increases:

- (i) the proportion spent on food decreases;
- (ii) the proportion spent on clothing remains approximately the same;
- (iii) the proportion spent on fuel, light and rent remains fairly constant; while
- (iv) the proportion spent on what may be called the comforts of life, such as education, health and recreation, tends to increase.

Thus the smaller the family income the greater the proportion of it absorbed by food and other elementary necessities (95% in the case of the working or poor class families studied by Engel); and the greater the family income, the higher the proportion spent on comforts and luxuries (15% in the case of the well-to-do or rich families).

This law is also confirmed in a general way by the study of working class budgets in Bombay made by the Labour Office. The average income of the worker in India being very small, a very high percentage of it is spent on food and other necessities, and this percentage decreases with the increase in the size of the income.

§9. Family budgets. In order to give the student some idea of a family budget, we give below (i) the average monthly budget of working class families in Bombay city for the period from May 1932 to June 1933 (prepared by the Labour Office, Bombay) and (ii) the average annual budget of six tenant cultivators in the Lyallpur district

(Punjab) in 1933-4 (compiled under the auspices of the Board of Economic Enquiry, Punjab).

(i) *Average monthly budget of working class families in Bombay city, 1932-3*

| Items | | | | Average monthly expenditure | Percentage to total |
|-----------------------------------|----|----|----|-----------------------------|---------------------|
| | | | | Rs. as. ps. | |
| Food | | | | | |
| Cereals | .. | .. | .. | 7 12 8 | 16.95 |
| Pulses | .. | .. | .. | 1 1 9 | 2.41 |
| Other Articles | .. | .. | .. | 12 8 5 | 27.24 |
| Total all food articles .. | | | | 21 6 10 | 46.60 |
| Fuel and lighting | .. | .. | .. | 3 4 4 | 7.11 |
| House Rent | .. | .. | .. | 5 14 3 | 12.81 |
| Clothing | .. | .. | .. | 3 3 8 | 7.03 |
| Umbrellas | .. | .. | .. | 0 2 0 | 0.27 |
| Shoes or Sandals | .. | .. | .. | 0 3 4 | 0.45 |
| Bedding | .. | .. | .. | 0 0 2 | 0.02 |
| Household Necessaries | .. | .. | .. | 0 0 10 | 0.13 |
| Miscellaneous | .. | .. | .. | 11 12 4 | 25.60 |
| Total expenditure on all items .. | | | | 45 15 9 | 100.00 |

(ii) *Average (annual) family budget of six tenant cultivators in the Lyallpur District (Punjab), 1933-4*

| Item | Average per family | Average per adult unit | Percentage to total |
|----------------------------|--------------------------|------------------------------|---------------------------|
| | Rs. as. ps. | Rs. as. ps. | |
| Housing (repairs done) .. | 1 6 3 | 0 3 9 | 0.3 |
| Food articles | 313 8 1 | 52 11 1 | 67.9 |
| Fuel | ... | ... | ... |
| Dress | 75 10 8 | 12 11 6 | 16.4 |
| Medicine | 4 10 1 | 0 12 5 | 1.0 |
| Light | 5 8 5 | 0 14 10 | 1.2 |
| Education | 1 3 10 | 0 3 4 | 0.3 |
| Religion | 11 4 8 | 1 14 4 | 2.4 |
| Travelling | 27 2 0 | 4 8 11 | 5.9 |
| Social | 9 0 6 | 1 8 4 | 2.0 |
| Amusements and luxuries .. | 3 13 5 | 0 10 4 | 0.8 |
| Miscellaneous | 8 8 3 | 1 6 11 | 1.8 |
| Total of all items .. | 461 12 2 | 77 9 9 | 100.0 |

§10. **Demand.** By demand we understand in economics not mere desire but *desire backed by the necessary purchasing power*. A pauper's desire for a Rolls-Royce motor car will not act as a stimulus to the production of these cars. In order that demand should not be confused with mere desire the more explicit phrases 'effective demand' or 'efficient demand' are often used.

§11. **The Law of Demand.** The Law of Demand is merely a corollary from the Law of Diminishing Utility, and it may be expressed as follows: *when the price falls, demand expands; and when the price rises, demand contracts.* The fall in price must correspond to diminished utility, which results from increase in quantity. The rise in price must correspond to increased utility, which results from decrease in quantity.

Another way of expressing the same idea is to say that a larger quantity can only be disposed of if the price is lower, the decline in price measuring the diminution in utility; or a smaller quantity can be disposed of at

a higher price, the rise in price measuring the increase in utility.

§12. Demand Schedule and Demand Curve. If we put prices on one side and place against them the respective quantities that can be sold at those prices, we get what is called a Demand Schedule.

*Market Demand Schedule
with a class of 'very rich' men (say, 5 in every 100
of population)*

| Price per lb. of sugar | Quantity demanded in the market | Quantity demanded by 'very rich' men |
|---------------------------|------------------------------------|---|
| As. | lb. | lb. |
| 16 | 50 | 50 |
| 14 | 60 | 50 |
| 12 | 80 | 52 |
| 10 | 130 | 55 |
| 8 | 200 | 57 |
| 6 | 300 | 60 |
| 4 | 500 | 62 |
| 3 | 700 | 63 |

In the above table, the influence of changes in price on market demand has been studied. Such a table is known as the Demand Schedule. It may be drawn for an individual or for a particular class or for the whole market. The market or group demand schedule represents the net combined result of a number of individual demand schedules and is more steady and dependable than the latter, the individual peculiarities of different consumers being largely cancelled one against the other in the

aggregate demand schedule. We find in our schedule that as the price falls, demand increases; while as the price rises, demand falls. In the third column the influence of changes in price on the richest class in society is studied. It shows that at the highest price only this class would make any demand, and that as price falls there is no appreciable increase in the amount demanded. Thus the demand on the part of the rich is inelastic as compared with the more elastic group demand, which reacts more readily to price changes.

We may now proceed to draw what is called a demand curve based on the above demand schedule (see Fig. 2).

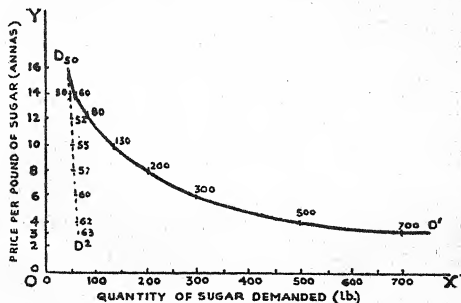


FIG. 2.—DEMAND CURVE

Along the horizontal axis OX are marked quantities demanded, while on the perpendicular line OY are marked the various prices for pounds of sugar. If we have a number of such price quotations and the corresponding quantities demanded at those prices we shall be able to mark a number of points, by joining which we get our 'Demand Curve' (DD¹ in the diagram), showing a gradual

and steady decline in prices accompanied by an increase in the quantity demanded. Thus as a result of the fall in price from 16 annas to 3 annas the quantity demanded increases from 50 to 700 lb. The dotted curve represents the inelastic demand on the part of the 'very rich'. The same drop in price (namely from 16 to 3 annas) does not induce them to increase their purchases appreciably, the quantity demanded increasing only from 50 lb. to 63 lb. This inelastic demand is illustrated by DD^2 showing a sharp decline.

§13. **Elasticity of demand.** Every commodity obeys the Law of Demand as stated above, that is, its demand expands with a fall in price and contracts with a rise in price. But this variation of demand following on variation in price occurs more readily in the case of some commodities than in that of others. In the former case we say that demand is comparatively more *elastic*; and in the latter, comparatively less elastic, or *inelastic*. *Elasticity of demand may be defined as the degree of response (in the form of variations in the quantity demanded) to changes in price. When a small decrease in price causes a considerable increase in the quantity demanded, (or a small increase in price causes a considerable decrease in the quantity demanded), the demand for that commodity is said to be elastic. When a considerable change in price is required to produce an appreciable change in quantity demanded, the demand for that commodity is said to be inelastic.* Thus the demand for necessities is inelastic since, whatever the price, people must have enough, and when they have had enough, they do not want very much more even if there is a considerable drop in price. On the other hand, demand is elastic in the case of luxuries, because they are not urgently required; people can increase or decrease their consumption of them according as prices fall or rise. Strictly, we ought to speak of demand being 'relatively more elastic' and 'relatively less elastic' rather than elastic and inelastic. For since every commodity is subject to the Law of Demand, the demand for no commodity can be said to be absolutely inelastic, in the sense that no change of price, however

great, causes any change whatever in the quantity of it that is demanded. It is all a question of degree.

§14. **The inter-relations between demands.** Often the demand for one commodity is connected with the demand for another. There are two cases to be considered.

(i) *Joint demand.*—Things are said to be in joint demand when what is wanted to satisfy certain kinds of demand is not a single article but a combination of articles (e.g. ink and pen, golf clubs and golf balls, pipe and tobacco). Then again a demand for a finished commodity involves an indirect or derived demand for its factors of production. Thus the demand for bread involves a joint demand for land, seed, labour, agricultural implements, transport, etc. (see Fig. 3).

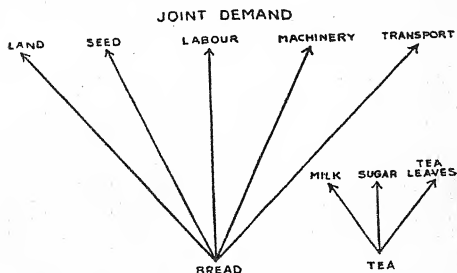


FIG. 3.—JOINT DEMAND

(ii) *Composite demand.*—Demand is said to be composite when a commodity is in demand for two or more different purposes or uses. Thus the demand for coal is compounded of the demands for it in households, in factories, in railways and in gasworks (see Fig. 4). Similarly, many raw materials like rubber, leather and

steel can be put to different uses, and the demand for them is therefore composite.

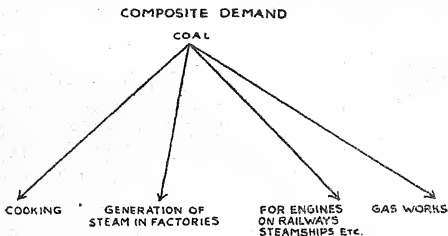


FIG. 4.—COMPOSITE DEMAND

SUMMARY

Consumption is the end of all economic activity. Production being the means and consumption the end, production may be said to be subordinate to consumption.

Human wants in general are insatiable. But each single human want is satiable. Some wants are complementary. Many human wants are alternative, or competitive.

The satiability of every single want is at the basis of the *Law of Diminishing Utility*—which states that, *after a point*, every addition to the stock of any useful thing yields less and less satisfaction.

Total utility means the aggregate utility derived from the consumption of the whole of a stock of similar goods. *Marginal utility* means the utility lost if one unit of the stock is lost, or—which comes to the same thing—it is the utility of the unit consumed last. The marginal unit, however, is not fixed unalterably. The utility of every unit considered as part of a given aggregate is the marginal utility. Value is the expression of marginal utility.

Wants are classified into *Necessaries, Comforts and Luxuries*. Each of these terms is elastic as to what kind of consumption it is to include. The term 'necessaries' for example is capable of a very rigorous or a very liberal interpretation.

'Comfort' and 'luxury' are terms whose meaning will obviously vary in accordance with the class in society to which a person may belong.

The aggregate of necessities, luxuries and comforts to which any class of people has become accustomed is its *standard of living*.

It varies from individual to individual, class to class, and nation to nation. It also varies from period to period for the same people. Desire to maintain one's standard of life has far-reaching influences on efficiency and on the worker's reactions to any given wage policy. The standard of living among the people of India is showing some signs of rising, which should make for greater economic efficiency and economic welfare.

A study of the family budgets of different classes of society has given rise to the generalization known as *Engel's Law*, which states that the smaller the family income, the larger the proportion of it spent on food and other elementary necessities of life; and the higher the family income, the greater the proportion of it spent on comforts and luxuries. Figures from family budgets illustrate this generalization.

Demand in economics means desire supported by the purchasing power necessary to satisfy it—in other words, efficient or effective demand.

Law of Demand.—When price falls, demand expands; when price rises, demand contracts.

This law is a corollary from the Law of Diminishing Utility.

The relation of demand to changes in price can be shown either by means of a *Demand Schedule*, or a *Demand Curve*.

Elasticity of demand means the degree of change in quantity demanded in response to change in price.

If even a slight change in price causes a big change in demand, demand is said to be *elastic*.

If even a very considerable change in price causes only a comparatively small change in demand, demand is said to be *inelastic*.

Inter-relations of demands.—Sometimes the demand for one commodity is related to the demand for another. Demand is said to be *joint* when its satisfaction requires the use of more than one article in combination. Demand is said to be *composite* when a commodity has more uses than one.

QUESTIONS

1. Define consumption and show that it is the end of all economic activity.
2. Discuss the main characteristics of human wants and show how they are of basic importance in the study of economics.
3. State and discuss the Law of Diminishing Utility. Draw an illustrative diagram. Is the law subject to any exceptions?
4. Distinguish clearly between total utility and marginal utility.
5. Indicate the relation between marginal utility and price.
6. Distinguish between necessities, comforts and luxuries.
7. Make a list of necessities for efficiency required by (i) a farm labourer and (ii) an urban worker in India.
8. Analyse the concept of Standard of Living and show how it varies from time to time, class to class and country to country.

9. Explain Engel's Law of Family Expenditure and indicate its application to India.

10. What is a family budget? What are the main items included in it? Give any typical budget you may have studied.

11. What is meant by 'demand' in economics? Distinguish clearly between individual demand and market demand for a commodity.

12. Explain the Law of Demand with the help of a market demand schedule.

13. Distinguish between elastic and inelastic demand. Give illustrations.

14. Explain the terms (i) Joint Demand, and (ii) Composite Demand.

Chapter V

PRODUCTION OF WEALTH

§1. **Meaning of production.** Every activity which results in the creation of *wealth* as defined above is to be regarded as productive. *Production may be defined as the creation or addition of utilities or values.* By the exercise of productive activity something that has exchange-value comes into existence.

In the production of material wealth, there is of course no question of creating new matter. This is something which man cannot do. At the most he can rearrange and combine particles of matter and give them a form which has a greater value for human purposes than they possessed before. Thus he puts together brick and mortar, so that he gets a house; or joins together pieces of wood, so that he gets a piece of furniture. This type of production is described as the *creation of form utilities*.

Another type is the *creation of place utilities*. The trader's function consists essentially in taking commodities from places where they are comparatively plentiful, and have therefore relatively small utility or value, to places where they are less abundant and have therefore greater value. The trader by his activity *adds to the value* of things and must therefore be considered a productive worker.

Production may also consist in the *creation of time utilities*. The actual supply of commodities like grain and fruit is limited to a certain period in the year, whereas the consumption of them is not so limited. Storing or preserving these things and carrying them over from periods of plenty to periods of scarcity is undoubtedly an important form of wealth production.

§2. **Productive and unproductive labour.** Any labour which issues in the production of wealth (form, place and time utilities) is productive. Judged by this standard, not

only is the labour devoted to agriculture and manufactures productive, but also the labour of those who are engaged in transport services and in commerce (buying or selling utilities). So also is the labour of domestic servants and the professional classes useful to society. Labour which fails of its purpose or which is purely predatory (e.g. the labour of burglars, swindlers and pirates) is unproductive. The test to apply is whether some want that is actually felt is satisfied.

§3. **Factors or agents of production.** In developing our picture of the modern economic system we principally take into account the production of material wealth, which involves the co-operation of four factors or agents of production: Land, Labour, Capital and Organization. The four factors may in the last analysis be reduced to only two, namely, Land (materials and powers of nature) and Labour. Capital is compounded of land and labour, and Organization is after all a kind of human labour. However, leaving aside the question of ultimate origin, there is sufficient difference in character between the four factors to justify our treating them separately. We proceed now to elucidate the nature and the functions of each of these factors.

I. LAND (NATURE)

§4. **Meaning of Land.** In economics we borrow many terms in common use but often attach special meanings to them. By 'land' we mean *all the materials and powers of nature which man adapts for his own use and consumption*. Besides 'land' in the ordinary sense of the term, we include such things as sunshine, rain, winds, waterfalls, water above as well as below the surface of the earth, the various minerals, electricity, magnetism and also the animals which man puts to economic uses—everything in fact which is given free by nature, and which man works on with his labour for producing wealth. 'Land' means *all gifts of nature in the form in which they exist before man begins to work upon them*.

§5. **Natural resources and their importance.** The character of the natural resources of physical environment

of a country has an important influence in determining the economic strength and prosperity of its people. No doubt, with the growth of scientific knowledge the mastery of man over nature is rapidly increasing. However, in the last resort, man must depend upon the materials and powers of nature, and the part of nature in determining the economic destiny of man cannot be ignored. Nature is the very foundation of economic life.

As already observed, the term 'nature' (Land) stands for the entire natural environment, and under environment, we may include such things as (i) Contour, (ii) Geographical location, (iii) Climate, (iv) Soil and subsoil, and (v) Vegetable and animal resources.¹

(i) *Contour*—This refers to the general physical features of a country such as the arrangement of land and water areas, the size and position of mountains and rivers, and the extent and altitude of the land divisions. The configuration or relief of the earth's surface influences economic activity in various ways. Thus according to contour we get either extensive plains giving us level sheets of land suitable for cultivation and facilitating communications (e.g. the Gangetic Plain in Northern India), or mountainous tracts (e.g. the Konkan) with small holdings and difficult communications, or again a gradually undulating slope (e.g. the Deccan Plateau).

(ii) *Geographical location*.—The geographical situation of a country has also an important bearing on its material prosperity, and its importance grows with the growth of international commerce. India occupies a highly favourable position as regards the rest of the world for purposes of international trade, standing as she does at the centre of the Eastern hemisphere. The situational factor may first be considered from the point of view of

(a) *maritime situation*, as referring to proximity to sea, possession of suitable harbours and convenient location on the banks of rivers. This factor largely explains the rise of the Mediterranean, the Atlantic and the Pacific civilizations. London, New York, Bombay, Calcutta,

¹ cf. E. R. A. Seligman, *Principles of Economics*, pp. 37-48.

Karachi owe their present importance largely to their favourable maritime location. (b) Secondly, the *inland situation* of a place in a country covering extensive territory like India is equally significant, having regard to the great volume of internal trade. Cities like Cawnpore have risen from their position of mere cross-road villages because of their location on important railway junctions. (c) The *industrial location and situation* assume special importance with growing commercial and industrial expansion. Proximity to raw materials and cheap power, largely determine the localization of an industry; witness the rise of the cotton mill industry in the Bombay Presidency, or of the iron and steel industry in the vicinity of the coal and iron fields in Bihar and Orissa.

The *disadvantages of physical location* can be partially overcome by (a) improved methods of transport of men and goods, (b) transmission of power, especially electric power, which has greatly altered geographical values in recent years, and (c) the modern facilities for the communication of ideas through post, telegraph, telephone and wireless services which have contributed to making the world into one market.

(iii) *Climate*.—Temperature, moisture, the direction and the force of winds, the healthiness or unhealthiness of the air—all these affect the arts of civilization, the character of the vegetable and animal products and the efficiency of human labour. Extreme heat (as in the Equatorial region), and extreme cold (as in the Arctic regions) are both unfavourable to sustained and progressive economic activity. In tropical countries like India the lavish bounties of nature, and the enervating heat, insure easy conditions of life for man on the one hand, and on the other encourage dullness and lethargy. A temperate climate as in western Europe is conducive to continuous progress.

The *rainfall (moisture)* factor influences the growth of forests, the size and utility of rivers, the nature of vegetable and animal resources, etc. Thus the moist climate of Lancashire is favourable for the spinning of higher counts of yarn; Bombay enjoys a similar advantage, though in

a smaller degree. Climate also affects the occupations of the people. The great influence of the monsoon currents on the national economy of an agricultural country like India is obvious. The monsoon may be said to make or mar the prosperity of the country.

(iv) *Soil and subsoil.*—The influence of soil conditions on agricultural productivity and vegetable resources is evident. A rich soil will support a dense population, as in the case of the alluvial fertile soils of the Indo-Gangetic Plain. On the other hand, population will be sparse in rocky or inhospitable tracts of land poor in chemical ingredients, which are either uncultivable wastes or at best only useful for sheep-farming or cattle-grazing.

Under subsoil conditions, we may take note of such factors as the presence or absence of mineral wealth. The iron, steel, mineral oil, and coal-mining industries are most important for economic development, and that is why we call them 'key industries'. England's economic prosperity has been favoured by her fortunate possession of coal and iron ore deposits occurring near each other. A survey of the mineral resources of India shows how India possesses a large range of mineral deposits and appears fitted to become an important industrial country.

(v) *Vegetable and animal resources.*—In a primarily vegetarian and agricultural country like India, the part played by the vegetable and animal resources can hardly be exaggerated. The supply of food, of raw materials, of animal power, of means of locomotion, etc., depends upon the effective exploitation of our vegetable resources, which include our main crops of rice, wheat, cotton, oil-seeds, jute, etc., and of our animal resources, which consist of the cow, ox, buffalo, sheep, horse, camel, etc.

6. Laws of Increasing, Constant and Diminishing Returns.

In order to produce wealth we have to make use of the different agents of production. If more wealth is desired, we can only secure it by using these agents more and more. But the relation between the effort put forward and the wealth created in response to that effort is not of an unvarying character. Sometimes an increase of effort may give us a more than proportionate increase

of response. If for instance, by doubling the effort we have more than doubled the value of the produce, we say that the Law of Increasing Returns is in operation. When the response to increased effort does not change, that is, if the additional capital and labour gives us the same additional return as before, we say that the Law of Constant Returns is in operation. If the result is *less than proportionate*, we should say that the Law of Diminishing Returns was in operation. The response from each one of the agents of production, namely land, labour, capital and organization, may exhibit at different times every one of the three varieties of (i) Increasing, (ii) Constant, or (iii) Diminishing Returns. But a persistent demand on any one of these agents of production will eventually be met by diminishing returns. The Law of Diminishing Returns is therefore of fundamental importance. The operation of this law is best explained with reference to land, which shows its working in a more pronounced manner than any of the other factors of production. The following statement of the law as given by Marshall is for that reason made with special reference to land, though the law itself is really of universal application, i.e. it applies to all the four factors of production.

§7. Marshall's statement of the Law of Diminishing Returns. 'An increase in the capital and labour applied in the cultivation of land causes in general a less than proportionate increase in the amount of the produce raised, unless it happens to coincide with an improvement in the arts of agriculture.'¹

What is meant by this statement is not that the *total* return from the land diminishes, but that the *additional* return received as the result of further expenditure after a certain point is less than proportionate to the additional outlay. The law may also be stated as a Law of Increasing Cost. Up to a point every increase in the return from land may mean decreasing cost per unit. But this cannot go on indefinitely. A stage will be reached when the

¹ A. Marshall, *Principles of Economics*, p. 150.

return will diminish and will ultimately even fall below the outlay as the cost per unit increases. Obviously a wise farmer will stop applying any further doses of labour and capital at the point where he finds that the additional yield from a particular dose just equals his expenditure. Land, as everybody knows, is not all of the same quality. Some lands are more fertile and others less. At first, of course, only the superior lands will be cultivated. But as the yield diminishes it may be more profitable to take up the inferior land for cultivation rather than lay out more and more capital and labour on the superior land. Thus, let us suppose there are three kinds of land available for cultivation, *A*, *B* and *C*. *A* is the best land, *B* comes after it in point of fertility, and *C* stands last being the least fertile of the three. The farmer would naturally cultivate land *A* first. Let us imagine that he applies successive 'doses' of capital and labour which cost him, say, Rs. 50 each and that the crop he wishes to raise is wheat which is selling in the market at the rate of 4 seers to the rupee. The application of the first dose of capital and labour gives him 500 seers. He spends another Rs. 50 and gets 450 seers, the third dose of Rs. 50 gives him 400 seers. Here he finds it worth while passing on to the cultivation of *B*, where his first outlay of Rs. 50 yields 350 seers; then he prefers to go back to *A* where an investment of another Rs. 50 gives 300 seers. After this he finds it profitable to turn to *C* which yields him 275 seers. The subsequent doses are in the following order:

| | | | | |
|----------|----|----|----|-----------|
| <i>C</i> | .. | .. | .. | 250 seers |
| <i>A</i> | .. | .. | .. | 225 " |
| <i>B</i> | .. | .. | .. | 225 " |
| <i>A</i> | .. | .. | .. | 200 " |
| <i>B</i> | .. | .. | .. | 200 " |
| <i>C</i> | .. | .. | .. | 200 " |

The cultivation of each kind of land is in this manner pushed to a point beyond which it ceases to be profitable. In the above example, it pays to spend Rs. 300 on *A* and Rs. 150 each on *B* and *C*. An additional dose of Rs. 50 will yield less than 200 seers on all these lands. A produce of 200 seers enables the farmer just to recover

his cost of Rs. 50 (e.g. $\frac{1}{4}$ th of a rupee per seer) at the current market price of 4 seers per rupee. Less than that will mean a loss to him.

If the returns diminish in passing from one kind of land to another, this is the *extensive* aspect (corresponding to extensive cultivation) of the Law of Diminishing Returns. When the returns diminish as we apply more and more capital and labour to the same land, we talk of this as the *intensive* aspect (corresponding to the intensive cultivation) of the Law of Diminishing Returns. When more produce is needed, we obtain it partly by working old lands more intensively and partly by resorting to new lands, which at first we had ignored because of their relative inferiority. Thus, generally speaking, the Law of Diminishing Returns is found to be in operation in both of its aspects, extensive as well as intensive.

§8. Qualifications and conditions. The Law of Diminishing Returns holds good only under certain conditions and is subject to certain qualifications. (i) In the first place, we must remember that in the earlier stages of cultivation we may find returns increasing instead of diminishing. But after a while the increasing returns give place to diminishing returns.

(ii) An increase in capital and labour causes a less than proportionate increase in the produce, 'unless it happens to coincide with an improvement in the arts of agriculture'. The adoption of improvements (in implements, manures, organization, etc.) may result in increasing returns. Yet, once the new methods are established, the same phenomenon of a progressive fall in output will show itself. The law assumes that any given methods of working the land remain unchanged.

(iii) The law suggests that the order of cultivation is from the better to the worse lands. It does not, however, require that any current classification of soils as good or bad must never change. Land at first regarded as inferior may later appear as superior (owing to the discovery of new methods, the construction of new roads and railways, etc.). This, however, does not in any way invalidate the Law of Diminishing Returns, for which all

that is necessary is that under any given set of conditions some lands should be better and more profitable to work than others.

The argument showing how the Law of Diminishing Returns applies to land in the sense of building sites, mines, fisheries and other extractive industries, runs on lines similar to those just indicated with reference to agricultural land.

In conclusion, we may observe that the operation of the Law of Diminishing Returns is unmistakable in extractive industries like agriculture where nature plays a predominant part. In the case of manufacturing industries where the part of man is predominant, the operation of the law may be suspended for a long time.

II. LABOUR

The Human Factor in Economics

§9. Characteristics of labour. Nature and man are the primary factors of production. We have considered the part played by nature in production, and shall now consider labour, or the human factor in Economics. Labour is any human effort which has an aim and purpose outside of itself, and which contributes to wealth-production. The exertion may be mainly physical or muscular, or it may be mainly mental or nervous. It may be of a mechanical and routine character, or it may involve the exercise of the highest human faculties.

Amidst all these variations, however, considered as an agent of production, labour must always possess two characteristics: (i) It must be undergone not for its own sake but primarily with a view to some reward outside of itself. The bodily exertion of an amateur gymnast, however strenuous it may be, is not labour in the economic sense. But if people have to pay for witnessing the gymnast's feats, then it becomes labour.

Some labour is essential and healthful to all normally constituted human beings, and under certain conditions it may be altogether pleasant to the labourer. But these are incidental advantages, and economic labour is put

forth not in order to reap these advantages but for the remuneration attached to it. In any case, while some labour may be pleasant, a good deal is also unpleasant and involves heavy toil, and it would not be forthcoming without inducement in the shape of wages.

Labour thus involves strain and sacrifice. This is however how the labourer himself regards it, and it is therefore called the *subjective* aspect of labour.

(ii) The second characteristic of labour is that it must result in the creation of wealth, that is, something which has an exchange-value. Mere intention to create wealth is not enough. The intention must be successfully fulfilled.

The consideration that labour must result in the creation of wealth serves to call attention to the *objective* aspect of labour. The reward offered (by the employer) for work done will obviously be according to the results of labour (and not according to the painful feelings associated with it), in other words, will depend on the *efficiency* of labour.

§10. Conditions of efficiency. The output of the worker will first depend upon the *standard of his health*. This in its turn will depend on his income and the manner in which he spends it. The poor standard of health of the worker in India is one cause of his low efficiency. The money spent on public health and sanitation by the public authorities is the soundest of national investments since it promotes efficiency of labour. A satisfactory system of *education*—general as well as technical—also serves the same purpose. The illiteracy and lack of technical education of the Indian worker impair his efficiency. The *choice of occupation* should be guided by temperament and natural aptitude, and misfits should be avoided as far as possible.

The *surroundings* in which labourers are required to work should be healthy and as pleasant as possible. The *wages* should be high enough to enable the worker to obtain not only a sufficiency of the bare necessities but also a few of the modest comforts and luxuries of life. The *hours of labour* should be limited so as to allow a

margin of leisure for purposes of rest, recreation and self-improvement. The *atmosphere* in which the labourer lives and works must be one of hope, freedom and change. Labour must be contented if it is to be efficient. It must feel that it is getting a fair return for its sacrifice.

It is difficult to say how far economic efficiency is a matter of *race* and *heredity*. Certain races like the negroes are said to be incapable of the sustained effort necessary under present conditions of wealth production. In most cases, however, there are good grounds for holding that the existing deficiencies are not inherent and irremediable, but are capable of being removed by education and improvement of environment.

Climate is another factor which has a bearing on efficiency. Extremes of heat and cold are unfavourable to efficiency. The highest efficiency is developed in regions with a temperate climate which enables a man to maintain physical activity and vigour.

§11. **Malthusian doctrine of population.** Having considered the quality of a population, we shall now consider the quantitative aspect of the population of a country. The relation between the size of population and prosperity was first stated by Malthus in his famous *Essay on Population* (1798).

He asserted that population increases faster than the means of subsistence and that it would be brought down to the level of food-supply by the operation of positive checks, such as misery, wars, epidemics, poverty, vice and crime, unless man showed forethought, and exercised moral restraint (i.e. preventive checks) through late marriage and abstinence during married life. Malthus argued that population tends to increase in geometrical progression while food-supply increases in arithmetical progression. There is, however, no proof of this. We should now say that except in very rare cases and except for very short periods, every increase in population is followed by a less than proportionate increase of food-supply (or to put it more generally—of *wealth*).

If a highly civilized people, already well advanced in knowledge and the arts of production, transplant themselves to some new and hitherto unexploited part of the globe, they may find that for some time with every increase of population there is a more than proportionate increase in production. But unless there is constant improvement in knowledge and the arts of production, a time comes when increasing returns give place to diminishing returns. Nature fails to respond to greater human effort made possible by increase in numbers, and forces restraining population within the limits of subsistence come into operation. Judged by this standard India may be said to be overpopulated. During the ten years 1921-31 alone, the Indian population increased from 319 millions to nearly 353 millions—an increase of 34 millions, which is almost equal to that of the whole population of such European countries as France or Italy. The co-existence of high birth and death rates, the low standard of living, the absence of preventive checks especially in the vast rural areas of the country, all point to the pressure of the population on the limited wealth of the country.

§12. Qualifications of the Malthusian doctrine. Subject to certain amendments, the Malthusian doctrine is generally accepted nowadays. But our propositions in this connexion are less dogmatic than they appear in Malthus' treatment of the subject. Malthus' mathematical formula expressing the ratios of increase of food and increase of numbers is now discredited. Also we no longer say that population, if unchecked, is always ahead of production. We say that this may very often be the case. It is conceivable that human ingenuity may provide means by which any given growth of population is more than offset by increase of wealth production. This may be said to have happened in England during the period of the Industrial Revolution.

If we are not able to increase wealth in proportion to increase in population, the only way to prevent misery is deliberately to check numbers. Malthus approves of only one method of checking excessive growth of population, and that is moral restraint, i.e. the postponement of

marriage. Modern opinion views this remedy as impracticable, unnecessary or even undesirable, and advocates recourse to neo-Malthusian methods of controlling births. There are good reasons for supposing that these methods are being largely followed in most of the civilized countries of the west, and their use (birth control) is being advocated with increasing insistence and emphasis even in a conservative country like India. Moreover, the advance in the standard of living and the progress made by education make men more and more capable of forethought and prudence and this has the effect of lowering the birth-rate. The solution of the population problem in India lies partly in further economic development of the country and partly in the adoption of preventive checks.

§13. Factors determining density. The density of population (expressed usually in terms of the number per square mile of territory) depends on the environment and its utilization by man, on climatic conditions, security of life and property, standard of comfort, economic resources and the stage of economic development. While natural conditions such as fertility, temperature, rainfall, and altitude have an important bearing on the density of the population, the human factor has come to exercise a decisive influence on the density. Highly industrialized and commercialized countries with intensive agriculture will show the highest density of population, as for example the United Kingdom and Belgium, where the density is well above 600 per square mile. Moderate development of both gives a medium density (about 200) as in India.

In an agricultural country like India the density of population will largely depend upon the nature of the soil, its configuration, rainfall, and the character of the cultivation. Thus tracts most favourably situated develop the highest density, as in the case of Bengal (646) and the United Provinces (456) with their vast stretches of level and rich soil and adequate rainfall. On the other hand, Bombay and the Central Provinces, which are less fortunate in these respects, show comparatively low density (177 and 155 respectively). Madras with its 328 persons

per square mile occupies an intermediate position. The Punjab with a density of 238 ranks next after Madras.

One point that deserves emphasis in this connexion is that mere numbers supported per square mile have small significance unless we also take into account the standard of comfort of the population in question. Thus, it would be misleading to infer from the almost equal density of Bengal (646), of Belgium (654), and of England and Wales (685), that Bengal is economically as well off as these other countries. It is well known that the standard of living in Bengal is much lower. The high density of Bengal is, therefore, to be regarded rather as an index of its poverty and economic backwardness.

§14. **Occupational distribution.** About 70% of the people of India obtain their livelihood from agriculture and allied occupations. Industries support about 10% of the population, but the bulk of these are engaged in *unorganized industries* connected with the supply of personal and household necessities and the simple implements of work. *Organized industries* occupy only about 1.5% of the people. Trade and transport absorb about 8%; and administration and protection of the country about 1.5%. These figures are sufficient to illustrate the usual statement that agriculture forms almost the sole occupation of the people of India, and stand in marked contrast with those for western countries.

§15. **Towns and villages.** The mass of the Indian people being agriculturists, it is natural that we should find a great predominance of villages over towns. A bare 11% of the Indian population are town-dwellers (a town being taken to mean a place inhabited by not less than 5,000 persons, or possessing some form of municipal self-government). There are only 2,575 towns as compared to nearly seven lakhs of villages. In England the proportion of the town-dwelling to the total population is 80%; in the United States, 56%; in France, 49%; and in Germany, 46%.

The present excessively uneven distribution of the people between town and country, with only a negligible proportion living in towns, is an index of India's general

backwardness. Civilization and progress have always originated in towns and radiated from them into the countryside. A greater development of modern industries would bring about an increase of the town population, and the country would progress more rapidly not only in an economic sense but also culturally.

§16. Economic aspects of the social and religious institutions. Social and religious institutions and ideals exercise a profound influence on economic activity, helping or hindering the economic progress of a people. The economic life of a country cannot be properly understood without studying its social and religious background. This is particularly true of a country like India where the various aspects of economic life have received their peculiar shape and mould from the characteristic social institutions of the people.

(i) *The caste system.*—One of these institutions is the caste system. At one time perhaps the caste system could be defended as making for economic strength and efficiency, being based on the principle of division of labour. Also it worked well when there were only a few distinct occupations, proficiency in which mainly depended upon manual dexterity, which could most conveniently be handed down from father to son. With the appearance of numerous occupations and with the advent of machinery, mere manual dexterity has become comparatively less important, and the caste system is now more a hindrance than a help. It tends to prevent a man from following his natural bent in selecting his profession, and this is undesirable from the individual as well as the social point of view. Some castes are regarded as lower and some as higher. The occupations of the former tend to be looked down upon and this fosters an attitude of mind opposed to the principles that all honest labour is equally honourable, and that inferiority and superiority are not questions of birth but of innate ability which is not the monopoly of any particular caste. The caste system is a hindrance to the mobility of labour in general, but especially to vertical mobility (see §17 below). In its present form it is a source of social and political weakness,

and the sooner it disappears the better it will be for the nation. Western education and culture should weaken the caste system. But there are other powerful influences—such as the scramble for political power ensuing from every forward step in political reform—which seem at present to be emphasizing the caste differences. The absence of the caste system in western countries and the elastic character of social arrangements make for a freer choice of occupations, greater mobility of labour, and a more developed sense of the dignity of labour.

(ii) *The joint-family system.*—The joint-family system is another characteristic of Indian society. The joint family has indeed its good points. Every member of the family can depend on being looked after. Widows and orphans find a natural shelter in the family. In these circumstances the State is required to do less than in the west for those who are helpless. When a large number of people live together as they do in a joint family, there is a saving in household expenses. In many ways the joint family at its best fosters the virtues of self-discipline, sacrifice, obedience and reverence. But the great objection under modern conditions to the system is that it stifles individual initiative and encourages drones lacking in all sense of self-respect and responsibility. At present, owing to the fact that individuals have very often to leave the family fold in search of a livelihood and owing to the growing influence of western individualism, the joint-family system is gradually breaking up.

(iii) *Laws of inheritance and succession.*—The Indian laws regulating inheritance and succession present a great contrast to the English law. In India, landed property is distributed among a number of heirs. In England, owing to the system of primogeniture, land is concentrated in the hands of a few people. A wide diffusion of property and wealth appears to be more in consonance with ideas of social equity than its concentration. But in India the principle of equal distribution of wealth is seen to lead to such evils as the excessive subdivision and fragmentation of land. It is also commonly regarded as discouraging large-scale enterprise by

preventing the accumulation of capital in the hands of individuals.

(iv) *Religion and economics.*—It is often suggested that our present economic backwardness is due to our other-worldly religion and the fatalistic outlook which it engenders. We are so much engrossed with the salvation of our soul after death that we neglect to make the best of our life on this planet. It can, however, be easily proved that Christianity also is other-worldly in the sense that Hinduism and Islam are other-worldly and yet it has not prevented the progress of the Christian nations in the arts of material civilization. We must further remember that in the past the Indian people have figured in history as great empire-builders, conquerors and colonizers. The products of the Indian craftsman had at one time world-wide fame and circulation. Turning to present-day conditions, some of the communities (like the Marwaris and Jains), which have taken the most active part in the new commercial and industrial life of the country and shown the greatest enterprise, are among the most orthodox and the least touched by modern scepticism and free-thinking.

The truth of the matter is that the economic motive is quite as powerful in India as in the west. The spirit of fatalistic resignation which is holding it in check is due to historical and political causes and has very little to do with the teachings of religion.

It is wrong to single out religion as a special influence in India making for apathy and indifference to material progress. Other influences such as political anarchy have played a far more important part in creating such an attitude. Calamities like famines, and diseases like malaria and hookworm, which lead to low vitality, must also be held largely responsible for the chronic apathy and pessimism of the people. Now that peace has been established and we are learning more and more how to control disasters like famines and to check the ravages of disease, a more hopeful outlook on life is becoming possible. Simultaneously the process of re-interpretation of the old texts of the Hindus and Moslems, favouring energetic endeavour to effect economic betterment, is in evidence.

§17. **Mobility of labour.** The term 'mobility of labour' indicates the ease with which labour can flow from one place or occupation to another, while the term 'immobility of labour' indicates the difficulty of such movement. Since the labourer has to deliver his labour personally, it is clear that the mobility of labour and the mobility of the labourer are convertible terms.

(i) *Geographical mobility of labour.*—As Adam Smith has said, 'of all sorts of luggage man is the most difficult to be transported'. He is by nature inclined to remain where he usually resides or where he is born. Fondness for home, reluctance to leave old associations, difficulties of language, etc., prevent free movement of labour from one place to another even when a man is thereby likely to improve his prospects. This is especially true in India where the caste system, the joint family and the village organization tend to make people reluctant to move from one place to another in the country or to emigrate to foreign countries.

(ii) *Horizontal mobility of labour.*—Horizontal mobility means mobility as between one occupation or trade and another of the same kind. No change or very little change in the nature of the task is entailed, the grade of work remaining the same (e.g. a typist moving from a textile to a mining office).

(iii) *Vertical mobility of labour.*—This occurs as between trades or occupations of *different* kinds belonging to different grades of labour, (e.g. a clerk in an office becoming the office manager or a railway porter becoming a guard). This kind of mobility is more difficult to attain owing to the influence of hereditary occupations, social barriers, lack of ambition and of the necessary facilities to secure promotion.

Lack of mobility of either kind prevents the best use being made of the available labour supply, causing unemployment and low wages in certain occupations.

SUMMARY

By 'production' we mean adding or creating values or utilities—form utilities, place utilities or time utilities. The utilities created

may be material or immaterial. Any labour which issues in the production of 'wealth' is productive. Labour which is purely predatory is unproductive.

In the production of material wealth the cooperation of (i) Land, (ii) Labour, (iii) Capital, and (iv) Organization is involved. These four are called *Factors of Production* or *Agents of Production*.

I. LAND (NATURE)

Land (Nature).—'Land' in economics has a much wider meaning than in ordinary language. It includes all the materials and powers which are freely given by nature and which man utilizes for wealth production. A country's economic destiny depends, among other things, on whether nature has been bountiful or niggardly, considerate or neglectful, in respect of contour, location, climate, soil and subsoil, vegetable and animal resources.

The employment of additional doses of capital and labour may be attended with different results at different times. Sometimes the returns may be more than proportionate to the additional effort (Increasing Returns), and sometimes they may be just proportionate (Constant Returns). But eventually the returns will be less than proportionate (Diminishing Returns). This tendency of *Diminishing Returns* is of fundamental importance in production. It is commonly stated thus with reference to land, to which it particularly applies: 'An increase in the capital and labour applied in the cultivation of land causes in general a less than proportionate increase in the amount of the produce raised, unless it happens to coincide with an improvement in the arts of agriculture.' This result follows whether the increases of capital and labour are applied to the same land or to another plot which, being relatively inferior, was not at first taken up for cultivation. In the first case, we get the intensive aspect, and in the second case, the extensive aspect of the Law of Diminishing Returns. The law is subject to certain qualifications, and assumes that the arts of cultivation remain stationary.

Other instances of 'land' are building sites, mines, fisheries, etc., and the law applies to them in much the same manner as to agricultural land.

II. LABOUR (THE HUMAN FACTOR IN ECONOMICS)

Labour is any human effort undergone for the sake of wealth-production and resulting in wealth-production. It may be physical or mental or a mixture of both. Modern industry requires steady continuous labour which is felt to be irksome and which, therefore, would not be forthcoming without the inducement of wages. Labour can be viewed subjectively or objectively.

The efficiency of the labourer depends upon several factors, such as his standard of health, his income, education, freedom of choice of occupation, contentment, race, heredity, climate, etc.

According to Malthus, *population* always tends to outgrow the means of subsistence, but the balance is established by the superfluous population being cut off by wars, epidemics, etc. (*positive checks*). It is open to mankind, said Malthus, to practise moral restraint (*preventive checks*) and thus to escape much useless misery.

The *Malthusian theory* has now been supplemented and improved in several directions, e.g. (i) by a recognition of the possibility of human inventiveness coping with increasing numbers without the positive checks coming into action, and (ii) by recognizing the importance of public health measures and of economic welfare as checks on the growth of population, and lastly (iii) by insistence on birth-control (*neo-Malthusian*) methods.

Density of population (i.e. number per sq. mile) depends on natural conditions and the manner in which men have learnt to use them. High density combined with high standard of living are characteristics of western countries generally. Industry on the whole supports a higher density of population at a given standard of comfort than agriculture. In an agricultural country like India density varies from province to province according to divergent conditions in respect of configuration, fertility of the soil and rainfall. Mere density affords no sure indication of the position as regards economic well-being.

The *occupational distribution* of the Indian population is very uneven, nearly three-fourths of the people being dependent on agriculture. As a corollary of this we find that only 11% of the people live in towns and the rest in rural areas.

Social and religious institutions exercise an important influence on the economic life of a country. The *caste system* is a prominent feature of Indian society. It may have been useful at one time, but it is now an anachronism and a source of weakness. Western countries are at an advantage in this respect.

A similar statement can be made about the *joint-family system*, which runs contrary to the spirit of modern times and which on the whole serves to weaken the incentive for economic effort.

The Indian laws governing *inheritance and succession* make for a wide diffusion of wealth. On the other hand they lead to excessive subdivision of land and prevent large accumulations of capital. The law of primogeniture prevailing in England tends to produce the opposite effects.

Indian *spirituality and other-worldliness* are often cited as causes of India's economic backwardness. This is however not altogether a correct view. If the principal religions of India are other-worldly, this is also true of Christianity as professed by advanced western peoples. But western peoples are progressive whereas the Indians are comparatively apathetic and pessimistic. This difference in attitude is due more to such factors as the troubled political past of India and the excessive liability to diseases and visitations of nature, than to the influence of the dominant religions of India.

By *mobility of labour* we understand the freedom of its movement from (i) one locality to another (geographical mobility); (ii) one

occupation to another (a) of a similar kind (horizontal mobility) or
(b) of different kinds (vertical mobility).

QUESTIONS

1. Explain the meaning of production and distinguish between form utilities, place utilities and time utilities.
2. Explain the distinction between productive and unproductive labour. Is there any unproductive labour? Give illustrations.
3. Indicate the various factors of production and show which of them should be regarded as the primary factors.
4. Examine the influence of natural resources on the economic welfare of a country. Draw your illustrations from England and India.
5. State and examine the Law of Diminishing Returns and indicate the qualifications to which it is subject.
6. Define labour and stress its fundamental characteristics.
7. Examine the several factors which affect the efficiency of labour.
8. Discuss the Malthusian theory of population and indicate the modifications it needs to make it fit in with present-day conditions. Give Indian examples.
9. Examine the factors which determine the density of population, giving illustrations from England and India.
10. Describe the occupational distribution of the Indian population and account for the fact that only a small minority of the people live in towns.
11. Discuss the economic effects of social and religious institutions with special reference to India.
12. How far is Indian spirituality (religion) to blame for the economic backwardness of India?
13. What is meant by mobility of labour? Distinguish and explain the various forms of mobility of labour.



Chapter VI

PRODUCTION OF WEALTH—(continued)

III. CAPITAL

§1. **Definition.** Capital has been defined as *all wealth, other than land, intended for further production of wealth*. Even in the earliest stages of human evolution capital makes its appearance. The crudest hunting implement made out of flint or stone is a form of capital. Time and energy have been spent by the savage in fashioning it instead of being spent in obtaining food. In modern society the forms of capital are very much more varied and complicated, but the principle involved is the same. Unless a community devotes a considerable proportion of its energy and resources to producing capital or 'production goods', instead of devoting itself to the production of immediately consumable goods ('consumption goods'), it cannot reach more than a very primitive stage of material prosperity.

§2. **The part played by capital.** Production of wealth with the aid of capital has been called 'the roundabout process' of production. Böhm-Bawerk illustrates the advantages of the roundabout process by the following example. A peasant requires drinking water. The spring is some distance from his house. He may go to the spring each time he is thirsty and drink out of his hollowed hand. But this is very inconvenient. Besides, he cannot collect and store any great quantity of water, such as he requires for various other purposes. But if he constructs an axe, fells a tree, hollows out pieces of wood and lays them end to end and thus constructs a channel which will bring water straight to his cottage, all his labour will have been more than repaid.

A very much greater result is thus obtained by the roundabout method, and many highly useful commodities

* cannot be produced except by the employment of elaborate roundabout methods.

Capital is required for (i) the provision of subsistence (wages) to the labourers engaged in the production of wealth, (ii) the purchase of plant and tools, and (iii) the provision of the raw materials of industry.

§3. **Capital depends upon use and intention.** Wealth becomes capital only when used for further production of wealth. For example, grain used as seed is capital. But if it is consumed as food, it is not capital. Again, a thing used in an identical manner may or may not be capital according to intention. Thus grain, if it is consumed by the landowner, is not capital. If, however, he uses it to feed his labourers as part of their wages, it is capital. Money can be regarded as capital only if employed for purchasing machinery and other instruments of production. If it is either hoarded or used for buying articles for immediate consumption, it is not capital.

§4. **Three aspects of capital.** Capital has three characteristics : (i) revenue-yielding capacity, (ii) productiveness, and (iii) prospectiveness.

A shareholder in an industrial undertaking looks upon his investment as something that will bring him income. If he reflects upon the matter he will realize that the income he is expecting is due to the productivity of capital. But productiveness is an attribute which capital shares with other factors of production. On the other hand, prospectiveness may be regarded as a quality peculiarly belonging to capital. By 'prospectiveness' we mean postponement of immediate consumption for consumption in the future, the sacrifice of present to future utility which is involved in the creation of capital.

§5. **Principal classifications of capital.** The following are some of the classifications :

(i) (a) *Private or individual capital* is all the stock-in-trade in the exclusive or partial ownership of the individual. (b) *National capital* is the aggregate of the capital owned by individual citizens and of the collective capital owned by the community or by a Government (e.g. national railways and telegraphs).

(ii) *Fixed and Circulating capital*.—(a) Capital which can be used only once and exhausts itself in one single use in the act of production is *circulating capital* (e.g. raw materials like coal, cotton, seed, manure). (b) *Fixed capital* is that which serves for *several* similar productive acts (e.g. a factory, machinery, the railway system).

Fixed capital being more durable than circulating capital, it follows that the return on circulating capital is immediate, while that on fixed capital is distant. The former must be replaced immediately, the latter at the end of a certain period. Fixed capital is of great advantage in production, and its growth in modern times is the most important cause of the remarkable advance in material welfare which civilized countries have achieved.

(iii) *Production (or Trade) and Consumption capital*.—*Production capital* consists of aids to production, such as machinery and materials, while *consumption capital* consists of things like food and clothing, which are consumed by the workers for the direct satisfaction of their wants while they are engaged in production.

§6. Creation and growth of capital. (i) *Creation of capital*.—Capital is not an *original* factor of production. It is the joint product of labour and nature. The existence and the use of capital implies an earlier surplus of production over consumption made possible by postponement of present enjoyment and the desire to provide for the future. With the growth of intelligence and foresight, and with the increasing command of efficient tools, accumulation of capital was rendered easier, and as civilization progressed the stock of capital goods increased enormously, making consumption also much richer and more varied in the long run. But capital is also said to be the result of saving which involves waiting or postponement of enjoyment. Savings are most conveniently held in the form of money and are commonly left with the Banks. The Banks lend them to the business community, which uses them for paying wages to workers, buying machinery, materials, etc. Thus savings productively used result in the formation of capital.

(ii) *Growth of capital.*—The accumulation and growth of capital are dependent upon the capacity to save and the willingness to save. The former depends upon the margin between income and expenditure. This is small in poor countries like India. The willingness to save depends mainly upon the strength of family affection, which is often the chief motive for saving. Certain conditions, like security of life and property, and facilities for saving and investment in the shape of Savings Banks, must be fulfilled in order that the desire to save should obtain free play. During centuries of misrule and disorder in India the people have contracted the hoarding habit, though this is slowly breaking down now that life and property are comparatively secure. Banking facilities, though still far from adequate, are gradually promoting the saving habit. The payment of interest on savings is an additional inducement to save.

§7. *Mobility of capital.* In general, capital can move more readily from place to place and country to country than labour can. It is impersonal and has no special attachment to any particular place. It has a tendency to seek the best investment it can secure anywhere, e.g. a large amount of British capital is invested in India and many other countries. The movement of capital is not entirely free, especially as between one country and another. Lack of international security, liability to heavier taxation abroad, and the general bias in favour of home investment are the main impediments in the way of perfect mobility.

In India, capital does not move sufficiently readily even within the country itself, either from place to place or from one line of investment to another. People generally prefer to invest their savings in land, houses or money-lending, even if they do not lock them up in gold or silver ornaments. The inclination to invest in industrial enterprises is relatively weak. A gradual improvement is, however, going on, and Indian capital is now much less 'shy' than it used to be in the not too remote past.

IV. ORGANIZATION OF INDUSTRY

§8. The entrepreneur and his functions. We have already mentioned organization or business management as the fourth factor of production. Even under simpler forms of economic activity (such as small-scale farming of his own land by the peasant proprietor, or weaving by an autonomous artisan) some management, judgement and ability are necessary for success. The need for such business ability and direction is particularly urgent when the various factors of production are owned by different persons and come from different places.

In the modern business world, the task of organization, or directing production so as to secure the greatest possible return, is so complicated that the services of a specialized class of people—called by various names such as entrepreneurs, undertakers, or organizers—have come to be essential. The entrepreneurs adventure or undertake the risks of the business. They bring together capital and labour, arrange or engineer the general plan of the business, and superintend its minor details. They purchase all kinds of materials and supplies and run the risks of market fluctuations and changes in the tastes and fashions of consumers.

In order to discharge all these functions properly, the entrepreneur must possess foresight, judgement, business shrewdness, ability to select the proper men and to inspire confidence among his deputies. He has been aptly called the 'captain of industry', and like a general in command of an army he must keep one eye on internal discipline and efficiency, and another on external strategy.

§9. Joint-stock companies. The joint-stock organization is the typical form of business enterprise today and has made much progress since the Industrial Revolution, which ushered in large-scale production. In recent years it has made striking progress in India. The total number of joint-stock companies at work in India in 1933-4 was 10,350, as compared with 3,062 in 1914-15. The joint-stock company is an association of shareholders who subscribe to its capital, which is divided up into fractions, usually of

small value, called shares. The shares which are transferable carry with them limited liability—usually limited to the face value of the share—the right to a dividend or a share in the profits when sanctioned by the directors, and a voice in the management in proportion to the shares held. In this connexion, the terms 'Nominal or Authorized Capital', 'Subscribed Capital' and 'Paid-up Capital' may be explained. The *authorized capital* of a joint-stock company is the total nominal value of the shares authorized by the Memorandum of Association (which is a statement of the company's powers and objects). The *subscribed or issued capital* is the nominal value of shares actually issued to or subscribed by shareholders. The *paid-up capital* is the total amount called up from the shareholders and paid into the coffers of the company. Besides its share capital, a joint-stock company may borrow capital in the shape of Debentures, which are usually pledged against the properties of the company and bear a fixed rate of interest. The active management of the company is entrusted to a Board of Directors elected at annual meetings of shareholders, and to salaried managers. The joint-stock company enjoys the advantages of unbroken existence and may live for an indefinite length of time.

The advantages of joint-stock enterprises.—(i) The principal advantage is that large-scale operations or enterprises, which formerly could be undertaken only by the State, are now possible to individuals who can combine their resources to build, say, a railway, or start a cotton mill or iron works. (ii) The division of a large total capital into a number of small shares carrying limited liability, facilitates the utilization of small savings for investments. (iii) The facility of transferring one's shares by sale spreads the risks widely and allows control to pass into the hands of the most competent and those who have faith in the enterprise. (iv) The corporation enjoys stability owing to its continuous existence, and can plan far ahead and for distant returns.

The disadvantages of joint-stock enterprises.—(i) In the first place, the corporation is an inferior kind of association

as compared to the partnership, since it is an impersonal association of a large and scattered body of shareholders unknown to each other. Adverse critics have said that it is merely an association of 'money bags' and that it leads to the evils of absentee capitalism, exploitation of workers and other abuses. (ii) The transferability of shares opens out dangerous possibilities of ill-advised speculation or gambling in shares on the Stock Exchange either by ignorant laymen or unscrupulous speculators. (iii) The promoters, directors and managers cannot be effectively controlled by shareholders.

On the whole, however, the advantages of the joint-stock form of organization outweigh the disadvantages. We cannot, therefore, dispense with it under present conditions. Greater publicity, proper auditing of accounts, suitable measures for increasing the responsibility of promoters and directors would minimize its disadvantages.¹

§10. Forms and limits of division of labour. Division of labour is the central feature of modern economic life and has important effects on economic and social progress. It assumes broadly two forms: (i) *Division of employments*.—In a rudimentary stage of economic development the wants of men are few and simple, and each man is sufficient unto himself and satisfies practically all his needs by his own personal labour. But very soon specialized occupations begin to appear. Each man, instead of being his own blacksmith, carpenter, barber, tailor, doctor and so on, devotes himself entirely to one or other of the different occupations, as under the Indian caste system. He offers his own services in exchange for the services of others pursuing other occupations, and this is a far more satisfactory arrangement than everybody doing everything for himself.

(ii) *Division of processes within an employment*.—A further stage is for each employment to be split up into a number of processes. In his famous description of

¹ Besides joint-stock enterprises there are various other types of business enterprises, such as concerns managed by sole traders or proprietors, partnerships, businesses managed by the State (such as State Railways), and those organized on a co-operative basis.

the industry of pin-making, Adam Smith describes how 'one man draws out the wire, another straightens it, a third cuts it, a fourth points it, a fifth grinds it at the top for receiving the head'. He notes how 'the important business of making a pin is in this manner divided into about eighteen distinct operations, which in some manufactures are all performed by distinct hands'. The result of such specialization (which has advanced very much further than in Adam Smith's days) is that the same number of workmen can, in a given time, turn out a vastly increased quantity of the product.

Since division of labour results in a great expansion of production, it is obvious that it is limited by the extent of the market available. Division of labour is also limited by the nature of the employment. For example there is only a limited scope for it in agriculture, which does not lend itself readily to a great division of different operations.

§11. Advantages of division of labour. The advantages of division of labour may now be considered. (i) Labour becomes more effective, because (a) the time of the workman is not lost in passing from one process to another; also because (b) work can be assigned according to ability, the more skilful workmen doing the more difficult parts of the work, and the less skilful doing the less difficult; (c) the loss due to mishandling of expensive machinery is minimized by choosing the more careful and competent workmen for operating such machinery; (d) such skill as each workman possesses is further enhanced because of his concentration on *one* type of work instead of his giving diffused attention to a number of perhaps widely different processes.

(ii) Industry gains in efficiency in other ways. (a) Costs are reduced because a smaller equipment of tools and implements is required, for each workman does only his particular specialized task. (b) Division of labour promotes invention owing to continuous concentration on the same task and the enlistment of persons whose special business it is to suggest improvements. (c) Moreover when a complicated operation is divided and

subdivided, each of these subdivisions tends to become automatic and mechanical, and this is exactly the sort of thing a machine can do just as well and indeed better than any human being. (d) From the standpoint of the workmen themselves it may be noted that since division of work increases their efficiency, their wages are likely to rise. They are further likely to benefit as consumers owing to the general cheapening of goods. Again, because the subdivided processes are simpler, no prolonged period of training or apprenticeship is necessary for the ordinary workman.

§12. Disadvantages of division of labour. Those who talk of the disadvantages of division of labour have in mind not the differentiation of occupations (for this, they would agree, is a mark or necessary condition of progress), but the splitting up of each industry or occupation and the specialization of workers in these little uninteresting segments.

Objections to division of labour all aim at showing that it worsens the position of the labourers.

It is commonly urged that (i) it reduces the worker to an automaton. He is condemned to do work which is monotonous and mechanical in character. The monotony is no doubt generally exaggerated, and probably there is also a tendency to exaggerate the interesting character of the work of the average craftsman of the old type. However, it remains broadly true that, *owing to division of labour, work becomes on the whole more monotonous and uninteresting.*

(ii) Another evil commonly stated as following from division of labour is that the workman, being overspecialized, is not able to take up any other work if there happens to be depression or unemployment in his own trade. Immobility of labour is increased, and so the problem of dealing with unemployment becomes more difficult. On the other side it is urged that division of labour, by curtailing the period of apprenticeship and simplifying work, improves the mobility of labour, especially when the use of machinery is common to all industries. Operatives in a watch factory, for example,

would find themselves at home among machinery used in the lighter metal trades.

(iii) It is further argued that under division of labour, the worker loses his sense of responsibility. So far as this is true, however, it is not the effect of division of labour but of the fact that the worker has no proprietary interest in the business.

(iv) The social, moral and physical evils of the factory system and of machinery and the overcrowding in industrial centres are often mentioned as being among the disadvantages of division of labour. Strictly speaking, however, the two things are separate. For instance, a task may be subdivided and each subdivision entrusted to a worker working in his own cottage.

§13. Machinery: its advantages and disadvantages. We may now treat the issues raised by machinery at greater length. Since the Industrial Revolution in England in the latter half of the eighteenth century, more and more we have been living in an age of material invention and progress. Industry, transport and even agriculture are fast getting mechanized, transforming the social and economic order of society. In India also we are experiencing to some extent the changes being brought about by the advent of the machine age.

Advantages of machinery.—(i) The greatest and most obvious advantage of machinery is that it enormously increases the productivity of human labour, and may therefore be said to add to human welfare.

(ii) Machinery increases the demand for general intelligence, although it displaces purely manual skill or dexterity of the old type. (iii) It largely removes the barriers between different trades and promotes the mobility of labour. (iv) It relieves the strain on human muscles by performing very heavy tasks. (v) It lessens human drudgery by taking over monotonous tasks, such as copying, or folding of papers. (vi) It makes possible the employment of workers of average strength and ability on work which formerly required exceptional skill or strength. (vii) It performs work much more regularly, quickly and accurately than would be otherwise possible. (viii) It

excels both in the performance of exceedingly heavy tasks and exceptionally delicate ones. (ix) It promotes standardization of goods and the production of identical interchangeable parts and thus facilitates the use of machine-made machines (e.g. tractors, pumps, or a motor-car engine).

Disadvantages of machinery.—On the other hand, critics like Ruskin look upon machinery as the greatest curse of the modern age. There are still people of this mode of thinking, who would like the world to revert to the domestic system of industry.

(i) It is argued that machinery is detrimental to the working classes, since it displaces human labour and throws large numbers of them out of their jobs. There is no doubt that this is the first or initial result of machinery, as witness the supplanting of the hand-loom by the power-loom, the bullock-cart by the bus, and the plough by the tractor. In the end, however, machinery creates more employment and absorbs the displaced labour. It reduces costs and makes things cheaper, and thus stimulates demand. The cheapness also increases the savings of the people and thus the supply of capital is enlarged. At the same time we must admit the hardships of the period of transition, when owing to the introduction of machinery, labourers find themselves without employment. Efforts must be made to minimize these hardships.

(ii) Machinery, it is argued, makes labour monotonous. As against this contention it may be pointed out that monotony and drudgery were not altogether absent from the old ways of working without complicated machinery. On the other hand, machinery offers the workers compensation in the form of shorter hours of work, and greater opportunities of utilizing their leisure pleasantly and profitably.

(iii) Machinery has adversely affected the skilled craftsmen, who under its regime have degenerated into semi-skilled machine operators. This is true so far as manual dexterity of the old type, as in the case of the Indian handicrafts, is concerned.

(iv) It is also said that hand-products are superior

to machine-made goods. This objection is, however, valid only in those cases where individual tastes have to be satisfied or artistic production is concerned.

(v) Finally, it is argued that machinery is responsible for the evils of modern industrialism and the capitalistic system, such as the exploitation of female and child labour, loss of the economic and social independence of the worker, and narrow specialization.

As said above, however, many of these abuses are capable of being either prevented or remedied by appropriate social legislation. We cannot do without machinery if we want to maintain our standard of living and the general advance of civilization.

§14. *Localization of industries.* Like individuals, particular localities are found to specialize in certain industries. This development may be influenced by (i) *permanent and natural factors*, such as availability of raw materials and cheap labour, transport facilities, nearness to markets, a suitable climate (e.g. a moist climate is advantageous for cotton spinning), availability of capital and credit facilities;¹ and (ii) *accidental factors*. A pioneer who starts a new industry happens to choose a particular locality, when he might just as well have chosen some other. And when he succeeds, other people establish similar industries in the same place.

When, for whatever reasons, an industry becomes localized in a particular place it tends to stick there, partly because it develops certain special advantages denied to other localities, and partly by sheer force of inertia.

The advantages of localization may be summarized as follows :

(i) Where a large number of establishments of the same type are concentrated, a number of subsidiary industries spring up for supplying tools and accessories to the main industry, doing the necessary repairs, or preparing the raw materials for it.

¹ The most striking examples of localization of industries in India are: the cotton mill industry in Bombay, Ahmedabad and Sholapur; the jute mill industry in Calcutta; and the iron and steel industry in Bihar (Jamshedpur).

(ii) Specialized means of transport and communication may develop so that the industry can market its products and secure its raw materials easily and cheaply.

(iii) Similarly, institutions like Banks and Stock Exchanges may come to be established, as in Bombay and Calcutta, and be of great use in the provision of capital to the industry and the marketing of securities based upon it.

(iv) Skilled workers such as may be required for the industry naturally congregate where there is likely to be constant demand for their skill.

(v) The establishment of technical journals and institutions is promoted. Just as it is a good thing for the progress of learning that there should be a number of colleges at the same place, so it is a good thing for the progress of an industry that there should be a number of similar establishments in the same locality, so that it is easy for them to compare notes and learn from each other. Under these conditions improvements are rapid, and much of the knowledge concerning the industry is imbibed unconsciously and automatically.

Disadvantages of localization of industry.—The main disadvantage of localization is that the economic prosperity of the locality comes to be bound up too closely with the fortunes of the one main industry. If anything should go wrong with the principal industry, the whole district might be faced with starvation as there is no other work to fall back on. Thus, the prosperity of the city of Bombay depends largely on the prosperity of its cotton mill industry, and since this, in recent years, has not been doing well, the position of the city seems to be deteriorating. A possible remedy lies in the establishment of supplementary industries.

§15. *Industries.* Manufacturing industries may be divided into two classes: (i) In the first place there are the organized industries carried on in workshops and factories. Here the scale of production is very large, huge amounts of labour and capital are employed, elaborate division of labour is introduced, and expensive plant and machinery are installed. The whole organization is

controlled usually by joint-stock companies with limited liability, and the workers are employed under the wage system, i.e. they receive a fixed wage per day, week or month, but have no share in the profit of the enterprise, nor any voice in its management. This factory system was first introduced in England in the course of the Industrial Revolution. Its beginnings in India may be traced to the middle of the last century when the cotton mill industry and the jute mill industry were started in Bombay and Calcutta respectively. Since then iron and steel, cement, paper, glass and other industries have been established.¹ (ii) In the second class fall cottage industries, which are usually carried on in the home of the worker. Here the scale of operations is small, division of labour simple, organization limited, and the supplies are intended largely for meeting local needs. The artisan manages his small workshop and retains the profits himself. Most of the industries in India belong to the second category. We shall now discuss the advantages of both these types of industries.

§16. Large-scale production: its advantages and drawbacks. Since the Industrial Revolution, the size of business units has tended to increase. Mass consumption has favoured large-scale production. Improved means of transport and the widening of the size of the market have further facilitated the tendency towards large-scale production. Sometimes a number of large-scale concerns join hands and form industrial combinations such as the Standard Oil Company of New York or the Associated

¹ According to the returns of the Indian factories subject to the Indian Factories Act, during 1935 the total number of factories was 8,831, and the total average daily number of persons employed was 1,610,932.

According to the publication, *Large Industrial Establishments in India* (1935), there were in India 398 cotton mills, 104 jute mills, 49 silk mills, 15 woollen mills, 888 engineering establishments, 70 foundries, 8 iron and steel mills, 12 petroleum refineries, 72 flour mills, 1,380 rice mills, 174 sugar factories, 994 tea factories, 61 match factories, 245 oil mills, 9 paper mills, 149 saw mills, 59 glass factories, 11 shoe and leather factories, 30 tanneries and 2,729 gins and presses.

Cement Companies of India. Such combinations are known as 'Trusts' in the U.S.A. and as 'Kartells' in Germany.

More and more capital and labour tend nowadays to be massed in individual business units, leading to an increase in their size or scale of operations.

The following are the principal advantages of production on a large scale :

(i) Efficient division of labour can be adopted, and specialized experts of the highest capacity can be employed with advantage.

(ii) Considerable savings can be made in the general expenses, e.g. in the overhead or standing charges, called the 'on-costs' or 'supplementary costs' of production. These costs do not increase in proportion to the increase in the size of the business. One engineer and one watchman will do just as well for a comparatively large factory as for a small one.

(iii) Expensive and up-to-date machinery and plant can be introduced with advantage since it can be continuously used if production is on a large scale.

(iv) Economies in buying and selling can be effected owing to the greater bargaining power of a larger business unit, and its greater reputation.

(v) Extensive and scientific advertising of goods is essential in these days. But it is so expensive that it can be economically undertaken only by large firms.

(vi) The utilization of by-products is possible only when the scale of operations is sufficiently large. For example, the coal gas in the coking process can be manufactured into something useful and marketable.

(vii) Greater possibilities of conducting research and experiments and the benefit of cheap goods to the consumer are other advantages of production on a large scale.

At the same time, large-scale production has its limitations and drawbacks. As the scale of production advances, increasing difficulties of management and supervision are experienced, and a point is reached beyond which further enlargement of the concern is not profitable. This is especially the case in agriculture, where the operations

are spread over a large area. Lack of direct contact between the employer and the employed, and the tendency towards the formation of vast monopolistic combinations injurious to the consumer are some of the drawbacks of large-scale production.

§17. **Small-scale production (Cottage industries).** We may now discuss small-scale production or cottage industries, which still persist even in industrially advanced countries like the United Kingdom, the U.S.A., or Germany, and are certainly very important in a country like India where the workers in the various small and cottage industries are still vastly more numerous than those engaged in organized large-scale industries such as the cotton and jute mills.

In some cases the goods produced are such that they do not admit of the employment of machinery and large-scale production. Proximity to the market and a more intimate knowledge of the consumer's individual wants may further turn the scale in favour of the cottage worker. Thus some kinds of headwear, *dhotis* and *saris* made by the hand-loom weavers in India have not been displaced by modern factories. The same is the case with those engaged in making embroideries in Lucknow and Delhi and lace in Surat. The metal worker, the shoemaker, the confectioner and other craftsmen fall into the same category and are similarly protected. Sometimes the artisans successfully adapt themselves to new conditions and learn to use superior raw materials and better tools. Thus in India the hand-loom weaver has taken to mill-yarn, the dyer to synthetic dyes, the blacksmith to iron rolled in convenient sections, and so on. In pointing out the limitations of large-scale production we have incidentally indicated the advantages of small-scale production.

Small-scale production ensures personal interest and supervision on the part of the producer, attention to detail, and direct personal contact between the employer and the workers.

Small-scale production of the old domestic industry type secures the economic independence of the workers and thus avoids the evils of industrial disharmony.

§18. Methods of aid to small and cottage industries. The foregoing survey shows the national importance of preserving and stimulating small and cottage industries. The first step is to decide which of the old cottage industries have a chance of prospering under present conditions and to consider whether any new industries could with advantage be started. The next step is to consider means to help the small artisan to establish himself firmly and securely. Suitable provision for manual training and instruction in crafts is an obvious necessity. Special industrial schools like the weaving schools in the Bombay Presidency should be established. The question of making available cheap raw material of good quality and introducing more efficient tools and implements by practical demonstrations and otherwise should receive proper attention. Assistance could also be rendered in the form of technical advice and by giving the artisans new patterns and designs likely to be popular. An attempt must be made to provide the handicraftsmen with the requisite capital through co-operative credit societies and perhaps also through industrial banks. Quite as important as anything else is an effective marketing organization. The Arts and Crafts Emporia at Lucknow and Lahore have been moderately useful. The establishment of Provincial Marketing Boards, licensed warehouses, and co-operative wholesale depots should also help. Several of the provinces have passed State Aid to Industries Acts to enable the Government to encourage suitable cottage and other industries. A sum of Rs. 5,75,000 was allotted by the Government of India to the Provincial Governments from November 1934 to March 1936. With the assistance of these funds various schemes for the development of the hand-loom weaving industry have been started.

Foreign countries like Germany and Japan have adopted special measures to encourage the growth of cottage industries.

§19. Rural industries. Side by side with the small and cottage industries described above, there is a need for developing rural industries subsidiary to agriculture in India. There is at present a large waste of rural labour

on account of the seasonal character of agricultural occupation. In the slack season, which lasts from 150 days to 270 days in a year in different parts of India, the agriculturist is practically unemployed. As Mr Darling points out, 'the only way in which a small farmer can keep himself out of debt is by being frugal and industrious and by having a second string to his bow [as a supplementary source of income], as in Japan, France, Germany and Italy'. Dairy-farming and cattle-breeding are promising as side occupations. The following rural industries may also be mentioned: poultry-farming, fruit-growing, market-gardening, hand-hulling, sericulture, bee-keeping, tanning, mat-making, bamboo and cane-work, rope-making, pottery. A careful selection based on intensive regional surveys is necessary.

Hand-spinning as a possible rural industry in India has received a good deal of attention because of the controversy which has centred round the *charka* and its association with Mahatma Gandhi, the great preacher of the gospel of *khaddar*. It is argued that hand-spinning is simple, easily learnt, and is capable of being taken up and put aside any time so as not to interfere with agriculture, the main occupation of the people. On the other hand, *khaddar* cannot always compete successfully with the cheaper mill-made cloth, which is also cooler and more attractive. However, so long as the farmer is not and cannot be supplied with any other more remunerative supplementary industry, hand-spinning offers him some chance of balancing his budget at the end of the year.

The subject of rural industries has in recent years attracted much attention in India. The Provincial Governments through their Village Uplift campaigns and the Indian National Congress through its Village Industries Association are busy devising methods of reviving rural industries.

A promising solution of the problem lies in promoting the establishment, in rural areas, of industries connected with the preparation of the agricultural produce for consumption and export, such as cotton-ginning, decortication of ground-nuts, rice-milling and husking, and

oil-pressing. In this connexion it may be pointed out that in contrast with the tendency towards localization of industry discussed in §14, another tendency towards dispersion or decentralization of industry has been in evidence in recent years in the rural areas. The heavy rents, higher wages and high costs in general in crowded urban centres of industry, have favoured this tendency, which has received further stimulus owing to the practicability of supplying cheap electrical power over long distances, the vicinity of raw materials, and the development of up-country markets.

§20. *Agriculture.* The agricultural industry plays an important role in the economic life of a country. During and since the war its great national importance has come to be widely recognized. It supplies food to the people and raw materials to industry. It is thus a basic, or key, industry. Agriculture is the principal national industry in India, three out of every four persons depending on it for their livelihood. Our export trade (see chapter x) is largely dependent on agriculture, consisting as it mainly does of raw materials like cotton, jute, and oil-seeds, and food-stuffs like rice and wheat.

The following enumeration will serve to bring out the wide range of India's agricultural production; and the specialization of the different provinces in the various crops:

(i) *Food-grains.*—*Rice* in Bengal, Bihar, Orissa and Burma, and to some extent in Madras and Bombay; *wheat*, in the north-west parts of India; *millets*, such as jowar and bajra, in Bombay and Madras; *barley*, in the United Provinces and Bihar; *ragi*, in Madras, the United Provinces and Bombay; *maize*, in Bihar, Orissa, the United Provinces and the Punjab; *gram*, in the Punjab, the United Provinces, Bihar, Orissa and the Central Provinces.

(ii) *Herbs.*—*Condiments* and *spices*, in Madras, Bombay and Bengal; *sugarcane*, all over India, especially in the United Provinces; *coffee*, in Madras and Coorg; *tea*, in Assam and Bengal.

(iii) *Seeds.*—Oil-seeds such as *linseed*, *sesamum*, *rape*

and mustard, ground-nut, castor in Madras, the United Provinces, the Central Provinces, Bombay and Burma.

(iv) *Fibres*.—*Cotton*, in Bombay, Berar, the Punjab and Madras; *jute*, in Bengal.

(v) *Miscellaneous*.—*Opium*, in the United Provinces; *tobacco*, in Bengal, Bihar, Bombay and Madras; *fodder crops*, in the Punjab and the United Provinces; *cinchona*, in southern India and Burma; *india-rubber*, in Assam, Khasi Hills and Burma; and *forest products*.

Of the total area of 259,118,000 acres sown in British India¹ in 1934-5, as many as 212,644,000 acres were under food-crops, and 46,474,000 were under non-food-crops. Among the food-crops rice is the leading crop, as shown by the fact that 79,520,000 acres were under the crop in 1934-5. In the same year other food-crops covered the following acreage:—Wheat, 25,655,000; *jowar* (millets), 21,853,000; *bajra* (millets), 13,102,000; maize, 6,185,000; gram, 13,732,000; sugarcane, 3,524,000. Among the non-food-crops, oil-seeds accounted for 14,453,000 acres; cotton for 14,484,000; jute, 2,476,000; tea, 783,000 acres; tobacco, 1,257,000 acres and fodder-crops, 10,308,000 acres. In the same year the total irrigated area was 50,533,556 acres. Of these 26,071,060 acres were under canal irrigation, 12,527,141 acres under well irrigation, and 612,823 acres under tank irrigation.

Agriculture is our most important industry. And yet it may be spoken of as one of our depressed industries in view of the low yield per acre, the small, scattered, uneconomic land holdings, the indebtedness of the peasant, and defective marketing organization. Various measures have been introduced to remedy these defects. Extension of irrigation facilities, crop improvements effected through the Agricultural Departments, co-operative consolidation of holdings, regulation of money-lending, establishment of co-operative credit societies and land mortgage banks, marketing surveys, village uplift campaigns, all these indicate the principal attempts being made to improve the economic condition of the farmer and to place agriculture on a sound footing.

¹ The figures, being for the year 1934-5, include Burma.

§21. Land tenures. One of the important questions that arise in connexion with agriculture is in relation to land tenure, i.e. the manner in which land is held and cultivated. Three principal kinds of land tenure may be distinguished. (i) In the first place there is the *Tenancy or Zamindari System*, under which the landlord leases the land for cultivation to tenant farmers, in return for cash rents fixed for short or long periods. This system prevails in the United Provinces, Bengal, Bihar and Orissa. It is by no means an ideal arrangement, and gives rise to various abuses such as neglect of land by the tenant and oppression of the tenant by unsympathetic agents employed by absentee landlords. Special measures are often necessary to safeguard the interests of small tenants who have long been on the land. (ii) Secondly there is the *Peasant Proprietary tenure* under which the small cultivator is the owner of the land, as in France, Germany, Italy and in several parts of India, such as the Punjab, and the Presidencies of Bombay and Madras. In the last two provinces it is called Rayatwari tenure. This system secures the personal interest of the peasant proprietor in his land and encourages careful cultivation. It ensures the social advantage of widespread distribution of private property in land, and the political advantage of a sturdy and contented peasantry. The small farmer is, however, as a rule, conservative and frugal to a fault, and by constant subdivision the small land holdings tend to become more and more uneconomic. (iii) In the third place there is the *Métayer or crop-sharing system* under which the landlord not only supplies land but also some portion of the working capital to the tenant. The produce is divided in an agreed proportion, usually half and half. This system prevails in Southern Europe and some parts of India. At first sight it appears a satisfactory arrangement, as protecting the interests of both the landlord and tenant. In practice, however, it has not met with much success. The landlord prefers to have a fixed rent rather than an uncertain and fluctuating share of the produce, while the tenant does not relish the idea of sharing the yield of the land with the landlord.

§22. **Economies and limitations of large farms.** We shall now discuss the economies and limitations of large farms or large-scale agriculture. These are similar to those of large-scale production in manufacture.

(i) A large farm is better equipped with capital, which can also be borrowed on moderate terms. It encourages expensive permanent improvements, such as enclosures, drainage, embankments, roads and farm-buildings.

(ii) Division of labour can be carried further in the case of large farms than in the case of small farms.

(iii) Large farms can employ expensive machinery and implements, which involve heavy outlay but help in keeping down farming costs.

(iv) The crops being large, the costs of marketing them are relatively small.

(v) Other advantages are that scientific systems of rotation of crops can be adopted, a due proportion can be maintained between arable and pasture lands, and agricultural experiments can be undertaken.

Turning now to the limitations of large farms, increasing difficulties of supervision over a wide area set a limit to the increase in the size of farms. There is, again, not the same scope for division of labour as in manufactures owing to the seasonal and intermittent nature of agriculture. Under a system of large agricultural estates, certain social evils generally appear, such as absentee landlordism, unequal distribution of property and wealth, and agrarian discontent.

§23. **Advantages and drawbacks of small-scale farming.**

(i) Careful personal attention to land and its cultivation is paid by the small cultivating farmer, who is intensely devoted to his land.

(ii) The great social advantage of small-scale farming is that it implies a wide diffusion of landed property.

(iii) The political advantages of a large class of peasant proprietors have been widely recognized.

On the other hand, of course, the proverbial conservatism of small farmers, while it makes for political stability, may also sometimes act as a serious hindrance to progress.

In the economic sphere, by the co-operative organization of agriculture it is possible for small farmers to command many of the advantages of large farms. A due balancing of the economic, social and political factors seems on the whole to point towards farms of moderate size co-operatively organized.

§24. The Law of Increasing Returns. The Laws of Returns have already been explained (ch. v, §§6-8). But there special stress was laid on the Law of Diminishing Returns as being appropriate in a discussion about Land. The subject now, however, is Organization of Industry. And in this connexion the emphasis is on the other two Laws, especially the Law of Increasing Returns.

The Law of Increasing Returns is the exact counterpart of the Law of Diminishing Returns. Marshall states it thus: 'An increase of capital and labour leads generally to an improved organization, which increases the efficiency of the work of capital and labour.'

The Law of Increasing Returns may also be described as the Law of Diminishing Cost. Under certain conditions the cost of production of successive increments of supply tends to fall with every increase of labour and capital applied to a business. Thus the cost diminishes up to a point as the size of the manufacturing establishment expands, and as more and more economies of large-scale production are realized. Thus if a motor-manufacturing concern is turning out, say, 100 cars a day at a cost of Rs. 3,000 per car, by doubling its output to 200 cars a day it would perhaps be able to reduce the cost to, say, Rs. 2,500; for the various costs, especially the on-costs or supplementary costs, would not increase proportionately, and greater specialization and a better division of labour could be introduced. The economies will go on increasing until at last a point of maximum return or minimum cost is reached, say, when the output has been raised to 300 cars and the cost reduced to Rs. 2,000 per car. Then the disadvantages of large-scale production would begin to tell, and would make it worth while starting another motor factory rather than expanding the existing one. The same holds good of transport and commercial activities,

banking and insurance and so on. If, however, the price of the raw material, like wheat used in the wheat-milling industry, or wool used in manufacturing woollen cloth, is the principal factor in determining the price of the finished commodity, there is not much scope for increasing return. An increase in demand for it, is likely to be followed by an increase in proportionate cost and therefore an increase in price. Sometimes, however, the opposing tendencies of increasing and diminishing returns may just balance each other and give rise to constant returns.

SUMMARY

III. CAPITAL

Capital includes all wealth—other than land—intended for further production of wealth. Production with the aid of capital has been called the 'roundabout process' of production. Wealth-production would be negligible and primitive without the help of capital. Capital should not be confounded with money. Money is capital only when turned into (i) instruments of production, (ii) wages, or (iii) raw materials—the supply of which constitutes the threefold function of capital.

The same thing may be capital or not according to use or intention.

Capital has *three characteristics*: (i) Revenue-yielding capacity, (ii) Productiveness, and (iii) Prospectiveness (reference to the future).

Capital can be classified in different ways, e.g. (i) individual and national capital, (ii) fixed and circulating capital, and (iii) production and consumption capital.

Capital is the result of saving (i.e. waiting, or postponement of consumption).

The following *factors influence its growth*: (i) margin between income and expenditure; (ii) habit of saving and family affection; (iii) security of life and property; (iv) banking and investment facilities; and (v) rate of interest.

Capital is more *mobile* than labour, since it is impersonal in its character. Nevertheless it does not move freely from one country to another and in India even its internal movement from one place to another and from one industry to another is restricted.

IV. ORGANIZATION OF INDUSTRY

The task of *organization* is undertaken today by a specialized class of people in modern industry, who are generally known as *entrepreneurs*. Their function is to plan the enterprise, bring together land, labour and capital in the most suitable proportions, and above all to take the risks of the business.

The typical and dominant form of business enterprise is the joint-stock company, which has the great advantage that it makes possible modern large-scale enterprises requiring huge capital outlay. It is not without serious drawbacks.

One of the most important features of modern industrial organization is the great development of *division of labour*, by which each kind of production tends to be split up into more and more separate processes. Division of labour is limited by the extent of the market, and by the nature of the employment.

The advantages of division of labour are many and obvious: (i) it increases the effectiveness of labour and tends to enhance wages. (ii) It reduces the cost of production and thus benefits the consumer through lower prices. (iii) It promotes invention.

Its main disadvantages are: (i) It makes labour monotonous. (ii) It destroys the personal friendly relations between workman and employer.

Machinery represents the mastery of man over nature and is a mark of progress. It enormously increases the productivity of human labour; takes over work that is purely mechanical and monotonous, leaving intelligent work to human beings; lessens human drudgery; relieves the strain on human muscles; increases mobility of human labour by increasing the demand for general intelligence rather than for specialized skill; widens the scope for employment; ensures accuracy, regularity, promptness and delicacy of work; and promotes standardization of goods. Its sudden introduction may displace labour. In the end, however, by increasing wealth and capital it increases the demand for labour.

Localization of industries refers to specialization on the part of localities. It may be described as territorial division of labour. It may be determined by natural or permanent causes, or may be purely accidental. When an industry is concentrated in a locality, it comes to enjoy certain *advantages* due to the springing up of subsidiary industries, the congregation of skilled workers, and the possibility of rivals observing each other and learning from each other.

The main *disadvantage* of localization is that the locality may suffer if its only industry declines for any reason. The remedy lies in the establishment of supplementary industries.

Industries fall into two classes: (i) Large-scale, organized, or factory industries and (ii) Small-scale cottage industries. The latter type is still prominent in India, although industries of the modern type have come to be established from the middle of the nineteenth century.

Large-scale production is the order of the day. Its principal advantages are a more elaborate division of labour; the possibility of employing highly-paid experts; up-to-date machinery and effective advertising methods; expensive research and experiments; utilization of by-products; saving in overhead expenses, and in buying and selling; benefit of cheapness to the consumer.

After a point a large-scale enterprise becomes too cumbersome, difficult to manage and to supervise. The possibility of labour troubles is greater on account of the increase in the number of

labourers to be dealt with. Lastly large-scale organization is apt to facilitate the formation of monopolistic combinations.

Small-scale production or cottage industries have survived to this day even in industrially advanced countries, and are in the aggregate more important than large-scale industries in India. Their special advantages come from proximity to the market, knowledge of the consumer's individual wants, personal interest and supervision on the part of the producer, and a more direct touch between masters and workmen. In some cases, as in India, the artisans have found it possible to adapt themselves to modern conditions.

Rural industries subsidiary to agriculture are urgently needed especially in India to enable the farmer to supplement his small income from land and to keep himself occupied during the slack agricultural season.

Agriculture is the principal national industry in India. India grows a variety of crops, such as rice, wheat, millets, gram, sugar, cotton, jute, and tea.

There are three types of *land tenure*:

- (i) The Tenant (Zamindari) system.
- (ii) The Peasant Proprietary (Rayatwari) system and
- (iii) The *Métayer* system.

The advantages and disadvantages of large-scale and small-scale production apply *mutatis mutandis* to agriculture also. The limit of extension of scale is, however, reached earlier in agriculture than in industry, not to speak of certain special social and political advantages attaching to a widely diffused ownership of land which in practice favours small-scale production.

The *Law of Increasing Returns* requires special emphasis in connexion with manufacturing industries. The Law of Increasing Returns may also be called the Law of Diminishing Cost, because with every increase of capital and labour the cost of production per unit decreases up to a point. This tendency is more noticeable and lasts longer in industry than in agriculture and other extractive industries. But here also a limit is reached sooner or later, when instead of returns increasing they begin to diminish. In other words the costs begin to increase faster than the economies of large-scale production.

QUESTIONS

CAPITAL

1. Explain the concept of capital and the part played by capital in the modern organization of production.
2. Classify capital and indicate the utility of each form.
3. Explain the process of the formation of capital.
4. What is meant by saying that capital is the result of saving?
5. Discuss the factors which influence the growth of capital in a country. Account for the shyness and the slow growth of capital in India.

6. Why is capital more mobile than labour? Show how far capital is mobile in India.

ORGANIZATION OF INDUSTRY

7. Explain the functions performed by the entrepreneur in modern business organization.

8. Indicate the characteristic features of a joint-stock company. What are its strong and weak points?

9. Describe the various forms which division of labour assumes and show how it is limited by the size of the market.

10. What are the benefits of division of labour? Indicate also its defects.

11. Examine the contribution made by machinery to economic and social progress.

12. Discuss the effects of machinery from the point of view of the working classes.

13. Examine the factors which bring about localization of industry. Give illustrations from any two leading industries in India.

14. Discuss the advantages and drawbacks of localization of industry.

15. Discuss the principal advantages and limitations of large-scale production.

16. Account for the survival of small-scale production (cottage industries), with special reference to conditions in India.

17. Indicate the main advantages and drawbacks of small and cottage industries, and explain the methods of extending suitable help to them.

18. Discuss the need for establishing rural industries in India, and account for the migration of industry from urban to rural areas.

19. Why is agriculture regarded as the key industry, especially in India?

20. Discuss the main kinds of land tenure and indicate their merits and drawbacks.

21. Examine the economies and limitations of large farms.

22. What are the advantages and drawbacks of small-scale farming, and how can the latter be remedied? Why are small farms better suited to India?

23. Give a clear exposition of the Law of Increasing Returns.

Chapter VII

VALUE AND EXCHANGE

§1. Importance of exchange and its benefits. In the early epochs of civilization, members of a self-sufficing tribal group or of a family met their wants by their own direct efforts. But as these groups expanded and the contacts between them multiplied, the need for exchange became obvious. As communities gradually developed into villages, villages into towns and towns into nations, division of labour became more and more complex, and exchanges became wider and more frequent. Under modern conditions, we have an elaborate system of division of labour and we mostly live by the exchange of our services and products for those of others. Production being mostly for exchange (sale), and rarely for the producer's own use, we must look upon wealth from the point of view of exchange. The advantages of exchange are mainly those of division of labour. The possibility of exchange enables nations and individuals to specialize in those tasks for which they have the greatest aptitude or natural advantages. This makes for economy of effort and provides conditions favourable to the material prosperity of all. The conception of exchange gives rise to that of value and price, that is, the ratio at which exchanges take place.

§2. How and why exchange takes place. As Jevons puts it, 'exchange is the barter of the comparatively superfluous for the comparatively necessary'. People sometimes argue as if one of the parties to every exchange must necessarily lose. This view is, however, incorrect. A sounder idea is conveyed by the common statement that 'exchange is no robbery', which suggests that both parties gain. Each party is satisfied that what he receives in exchange is more valuable to him than what he has to part with. Suppose a farmer exchanges his surplus

grain for the surplus cloth of a weaver. It is clear that the farmer values the cloth at least as much as, if not more than, his grain; and that the weaver values the grain at least as much as and possibly more than his cloth. The intervention of money does not make any difference. The farmer sells his surplus grain for money, and with this he purchases cloth and other requirements. Here we say that the utility of cloth to our farmer is not less than that of the money given.¹

§3. What is a market? The term 'market' in Economics does not necessarily refer to a particular and definite locality. The essential idea of a market is not so much some particular place (because as we shall see presently some markets are world-wide), as the presence of effective competition. What is implied is that buyers and sellers are in such intimate contact that the price of the commodity in question tends to be uniform throughout the extent of the market.

There are different kinds of markets: (i) *markets for commodities* like wheat, sugar, coffee, copper, oils, called the Produce Exchanges; (ii) *markets for invested capital*, stocks and shares, called the Stock Exchanges, and (iii) *markets for the precious metals*, that is gold and silver, called the Bullion Exchanges. In each case there are wholesale and retail markets. In the former, big merchants purchase large quantities of a commodity from the producers. In retail markets, small quantities are bought and sold.

§4. Conditions determining size of a market. The extent or size of a market depends on the following factors:—

(i) *Means of communication*.—In these modern days the telegraph, the telephone and the wireless enable vast bodies of sellers and buyers to be in instant communication with one another, though they may be separated in space by enormous distances. Under these conditions, it is easy to see how in respect of cotton, for example, such widely

¹ In the next chapter we shall explain the mechanism of exchange, first by barter, later by money.

separated places as Bombay, Liverpool and New York, constitute one market, and prices at all these centres tend to be the same at any given time.

(ii) *The portability of goods dealt with.*—Even if I know that I can sell my cotton better at Liverpool than at Bombay, this knowledge will be useless to me unless I am in a position to transfer my cotton rapidly and without too much expense to Liverpool. Easy portability is thus an essential condition for the establishment of a wide market.

(iii) *Cognizability* (or the ease with which a thing can be recognized).—So far as this matter is concerned, first-class securities and the precious metals enjoy an exceptional advantage. Although the buyer may not be on the spot he knows exactly what he is buying. The expedient of grading and sampling has latterly improved the conditions for such articles as wheat, cotton, pig-iron, etc. A sample may be sent (that is, if the commodity is homogeneous), or the commodity may have been classified into a number of grades so that everyone knows, for example, that Grade *A* stands for such and such a quality, Grade *B* stands for such and such another, and so on, and a bargain may be struck without the buyer actually being on the spot to inspect the commodity.

(iv) There must be *a large and steady demand for the commodity*. Otherwise it will not have a wide and well-organized market.

(v) *The commodity must be reasonably durable*, that is, it must not go bad like butter or fruit (unless properly tinned or preserved) in the process of transfer.

In proportion as these conditions are fulfilled, commodities will have wide and highly organized markets instead of small and restricted markets.

§5. *The problem of value.* Value always depends upon the interaction of supply and demand. In this connexion, we often meet with false or inaccurate statements; for instance, the statement that value depends on cost of production only. This is at once disproved by pointing out that much money may be spent in making an article and yet people will not pay anything for it

if they have no use for it. Again, let us suppose that the cost of production of an article *A* is twice as great as that of another article *B*. It may also happen that the price of *A* is for some time twice that of *B*. Nevertheless, there is no guarantee that this proportionate relation of prices will always be maintained. It is a matter of common experience that relative prices of commodities are constantly changing without any corresponding change in their cost of production. This happens because conditions of demand keep changing. For instance, if an illiterate community becomes literate, its demand for books will rise, and the prices of books may therefore be higher.

Similarly, the phenomenon of value cannot arise unless there is the supply side as well as the demand side. The plain commonsense meaning of this statement is that unless it costs something to make a commodity it will not bear a price, however much it may be desired by people.

Marshall compares the phenomenon of value with the phenomenon of cutting by means of a pair of scissors. The process of cutting requires the lower blade as well as the upper; both of them may not always be equally active but both must operate. Similarly, the phenomenon of value cannot manifest itself unless the supply side as well as the demand side is present; although supply may exercise a larger determining influence under one set of circumstances, while demand may be the more important factor under another set of circumstances.

§6. The marginal theory of value. Modern economic analysis has drawn pointed attention to the behaviour of both supply and demand *at the margin*. Instead of simply saying that value depends on supply and demand, it is more accurate to say that it depends on *marginal supply and marginal demand*. As we know, the supply of any commodity in a market is contributed not by one producer but by several, and the cost of production varies from producer to producer. But the price demanded in the market does not vary from producer to producer. We have seen that in the same market there cannot be

more than one price for the same commodity. This uniform price must be such as to satisfy all producers. If, however, it satisfies the man whose cost of production is the highest or the man who is least anxious to sell, that is, the *marginal producer*, it must necessarily satisfy the other producers. From the side of supply then the price is fixed by the *marginal supply* (that is, the supply of the marginal producer).

Similarly, among the consumers of a commodity, there are some who are more anxious to purchase it and are willing to pay or can afford to pay more than others. But, unless the more anxious as well as the less anxious consumers purchase the commodity, the whole of a given aggregate quantity will not be sold. In order that it should be sold, the uniform price must be such as to suit the least anxious among the purchasers, i.e. the *marginal consumers*. From the side of demand, therefore, the price is fixed by marginal demand. Thus the actual price must be such that it represents both the marginal supply and the marginal demand.

Let us suppose that 300 units of a certain commodity x are required, and that the amount can be made up only if, say, three suppliers A , B , C , can be induced to bring in their supplies. Suppose for simplicity's sake that each of them supplies 100 units. The cost of production¹ per unit of the commodity is as follows :

| | | | |
|---------|----|----|-------|
| For A | .. | .. | Rs. 5 |
| For B | .. | .. | Rs. 6 |
| For C | .. | .. | Rs. 7 |

C is here the marginal supplier who is 'least willing to sell', in the sense that he will ask for a higher price (namely, Rs. 7) than A or B . Under these circumstances the one uniform price which will satisfy all suppliers will be not less than Rs. 7. Therefore, we say that from the side of supply the price is fixed with reference to marginal supply.

As regards the consumers, let us suppose the aggregate of 300 units can be disposed of only if D , E , F , all offer to

¹ See §10 below.

buy it. Since their circumstances are not the same, the price at which each will consider it worth his while purchasing the commodity will be different.

D is prepared to pay Rs. 11 per unit and buy 100 units at that price.

E is prepared to pay Rs. 10 per unit and buy 100 units at that price.

F (marginal consumer) is prepared to pay Rs. 7 per unit and buy 100 units at that price.

The one uniform price which will suit all the three purchasers will be the one that is low enough to induce the least anxious of the consumers to purchase, that is, Rs. 7. Since *D* and *E* are prepared to pay Rs. 11 and Rs. 10 they will of course buy all the more readily if the actual price happens to be lower. Thus for the given amount of a commodity, namely 300 units, which changes hands, the price must be such as to satisfy the least anxious producer whose contribution is necessary to make up the total, and it must at the same time be such as to attract the least anxious among the purchasers who must come in if the whole of the commodity is to be bought. In our example, Rs. 7 is this price. This price is calculated to give satisfaction to the greatest number of buyers and sellers. It will satisfy six people, namely, *A*, *B*, *C*, *D*, *E* and *F*. The price of Rs. 5 will satisfy only four, namely, *A* among the sellers, and *D*, *E* and *F* among the buyers. The price of Rs. 6 will satisfy five people, namely, *A*, *B*, *D*, *E* and *F*. The price of Rs. 11 suits only four, namely, *A*, *B*, *C* and *D* and Rs. 10 suits only five, *A*, *B*, *C*, *D* and *E*.

§7. Market value and normal value. In the above section we have given a general outline of the theory of value. Now we proceed to consider some important details of it. The proposition that value depends upon (marginal) supply and (marginal) demand, we shall find, varies as to its interpretation according to the period we are considering. This leads us to the famous distinction between Market Value and Normal Value.

Market value is the current price of a commodity, i.e. its price at any moment, and may be regarded as the temporary

equilibrium price (balancing temporary demand and supply). On the other hand, the normal value of a commodity is the price which economic forces will bring about in the long run and may be regarded as the normal (long-period) or permanent equilibrium price (balancing normal demand and supply). We shall discuss the two cases separately.

§8. The equilibrium of demand and supply in the case of market value. A diagram such as Fig. 5 is commonly used to illustrate how market price is determined :

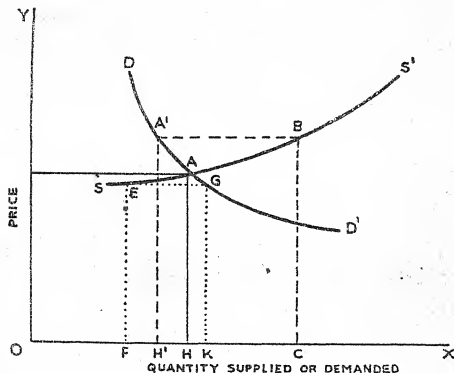


FIG. 5.—DIAGRAMMATIC REPRESENTATION OF HOW MARKET VALUE IS DETERMINED BY THE BALANCING OF DEMAND AND SUPPLY

In the above figure quantities are measured along the line OX and prices along OY. SS^1 is the supply curve. It slopes upwards, showing that larger supplies are attracted as prices rise, thus inducing the less anxious among the

sellers to bring in their supplies. DD^1 is the demand curve. It slopes downwards, showing that larger quantities will be demanded as prices fall, thus inducing the less anxious among the purchasers to buy. AH is the only price which will reconcile the opposite points of view of the suppliers and the purchasers. At that price the quantity offered for sale coincides with the quantity which purchasers are willing to take. AH is the equilibrium price, so called because, once established, it is not likely to be disturbed. Any other price is unstable or likely to be disturbed. For example, take a higher price, namely, A^1H^1 . At this price OC is supplied but only OH^1 is demanded. That is, sellers are more anxious to sell while buyers are less anxious to buy. So prices will come down until again the stable price AH is reached. Similarly any price lower than AH is unstable. For instance, at price EF only OF is supplied, while OK is demanded. That is, buyers are more anxious to buy and sellers less anxious to sell. Therefore the prices will rise until AH is reached again. The principal thing to be remembered in the case of market value is that here supply means supply in hand or in sight, i.e. stocks already on offer in the market including any changes in them that could possibly be effected almost at once. The fact that the quantity actually available at any given time has to be taken as unchangeable for the time being has important consequences. For instance, supposing that for some reason demand for the commodity in question rises (that is, people are prepared to pay a higher price for the same quantity or to purchase larger quantities at the same price), what will be the immediate effect of this? We can confidently answer this question by saying that the immediate effect will be a rise in price. This is how market value is affected.

§9. The equilibrium of demand and supply in the case of normal value. But the question as to what will be the effect of this in the long run, or in other words, how normal value will be affected, cannot be answered so briefly or so confidently. The higher demand and higher price, if they persist for any length of time, will influence the

supply. Because of the higher price more capital will flow into the industry, existing establishments will be enlarged and new establishments will appear. Supply, though it cannot be increased immediately, will thus eventually be increased. We cannot say off-hand what will be the effect on price of this increased supply, because that will depend on the conditions governing the production of the commodity and its cost of production. If the Law of Diminishing Returns is in operation, the rise in price (which, as we saw, must occur immediately if demand is keener) will be permanent. If the Law of Constant Returns is in operation, there will be no change in price. Only more will be sold at the same price. But if the Law of Increasing Returns is in operation, this means that with the increase of scale of production the cost of production per unit will go down, and therefore the price also will be lower. So the long-period effect of the increase of demand may be (i) a higher, (ii) the same, or (iii) a lower price, according to these different circumstances.

The matter can be argued on the same lines on the assumption that there is a fall in demand. The immediate result of this would be that the market price will be lower than the cost of production. Because, while demand has fallen, supply cannot immediately be curtailed appreciably. The stocks that are there must somehow be got rid of. It also takes time to transfer capital and labour from one kind of production to another. So that in spite of lower prices and lower profits, practically the same quantity will for the time be offered for sale. But ultimately, the process of the transfer of capital and labour and curtailment of scale of production will make itself felt, and supply in the market will fall off. Whether the final effect of this fall-off will be a higher or lower or the same price will again depend on which of the three Laws of Production is in operation. Assuming diminishing returns, a smaller supply will mean a lower price. With increasing returns, a smaller supply will raise the cost of production and therefore the price. With constant returns, the price will remain the same; but the quantity sold will be less.

§10. Cost of production in relation to value. Because generally speaking supply cannot be adjusted at once in response to changes in demand, we say that for market value demand is more influential than supply, i.e. the marginal utility to consumers of the available supplies mainly governs value. That is, price may for a time be out of relation with cost of production. With normal value a sufficiently long time is assumed for economic forces to work themselves out and fully adjust the supply to a given change in demand, and therefore we say that here supply is more influential than demand. As already explained, price must in the long run correspond to the (marginal) cost of production. Cost of production ordinarily means the money cost or expenses of production, and these can be divided into two classes: (i) *Prime or direct costs* which refer to such items as vary in direct proportion to the output (e.g. the amount of the raw materials consumed, the labour power required and the wear and tear of the machinery involved) and (ii) *supplementary or on-costs* which include those standing charges on account of durable plant, salaries of the superior employees and other establishment charges which must be incurred whatever the output. These two elements together make up the total cost of a commodity, and prices in the long run must cover this total cost. It will thus be realized that the *time element* plays a very important part in the theory of value and that on it is based the distinction between market value and normal value.

SUMMARY

Economic progress requires specialization or division of labour and this in turn necessitates *exchange*. The phenomenon of exchange gives rise to the central problem in economics, namely the problem of value.

Voluntary exchange among normally intelligent men must result in gain to both parties to the exchange.

The essential idea of a *market* is not some definite locality where things are offered for sale, but the presence of effective competition leading to uniformity of price throughout the extent of the market.

The following *conditions* are favourable to the development of wide markets, (i) Effective means of communication, (ii) Portability,

(iii) Easy cognizability (through grading, sampling, etc.), (iv) Durability of the goods dealt with, and (v) Existence of a large and steady demand.

For a correct understanding of the phenomenon of *value*, it is necessary to appreciate the fact that value depends both on supply and demand. Modern analysis has shown that what is significant in this connexion is *marginal supply* and *marginal demand*.

The famous distinction between *market value* and *normal value* turns on the period considered. In market value the reference is to the price at any given time, and the forces of supply and demand that we have to consider are those actually operative at that time. But the immediate or short-period effects of these changes on value (or price), with which we have to do in market value, may be different from the ultimate or long-period effects, with which we are concerned in normal value. In normal value we assume that enough time is given for tendencies set up by any changes in conditions of supply or demand to work themselves out completely.

Gradually the day-to-day or market price will show the influence of adjustment on the side of supply; and market price will approach normal price more and more.

Such is the relation between market value and normal value.

In market value, demand is more influential than supply, which is to be taken as, for the time, unalterable. In normal value, supply may be regarded as the more influential factor, a certain changed condition of demand being assumed to persist while the supply is being adjusted to it. The normal value of a thing tends to coincide with its cost of production. By the term 'cost of production' is meant *the expenses of production*, i.e. the money payments in the form of wages, interest and profit necessary to call forth the different kinds of effort or sacrifices.

QUESTIONS

1. Give a brief account of the evolution of exchange and indicate its benefits to society.
2. Explain the term 'market' in economics. What are the conditions governing the extent of a market?
3. Show how value always depends upon the interaction of supply and demand.
4. 'We might as reasonably dispute whether it is the upper or under blade of a pair of scissors that cuts a piece of paper, as whether value is governed by utility or cost of production.' Discuss.
5. Clearly explain the distinction between market value and normal value and bring out the significance of the time element in the theory of value.
6. Explain how market value is determined. Draw an illustrative diagram.
7. Show how the value of a reproducible commodity under competition tends to settle in the long run at its cost of production.

Chapter VIII

MONEY ¹

§1. Difficulties of barter. A money economy is found to exist in every civilized society. The peculiar disadvantages of barter (that is, direct exchange of goods against goods) which is a possible alternative to money economy, may be briefly summarized as follows : Exchange by barter cannot occur without the double coincidence of wants and possessions. What I want the other man must possess, and he must want what I possess. Even when there is this double coincidence there would be difficulty in deciding how much of one thing ought to exchange for how much of the other, and endless higgling would be the result. This difficulty is obviated if we have a common measure of value. In barter there will be further difficulty of 'accommodating units of sale to units of purchase'. Suppose I have a field and I wish to offer it in exchange for numerous articles which I am in need of. How can I cut up the field into convenient lots to offer them in return for every one of these articles ?

All these difficulties can be overcome by the intervention of money, i.e. of a third commodity which can be used as a common medium of exchange and measure of value.

§2. Nature of money. The term 'money' is used in different senses in different connexions. But a careful inquiry as to the meaning of the term will serve to clear our ideas on the subject. Walker's famous statement, 'Money is what money does,' on the analogy of the well-known proverb, 'Handsome is that handsome does,' merely leads us further to inquire 'What is it that money does ? What are its functions ?' Its principal functions are that

¹ This chapter may be omitted by students reading for the Bombay University First Year examination in Commerce.

it acts (i) as a medium of exchange, and (ii) as a standard of value.¹ If as Walker says whatever performs the functions of money is to be included under the term money, it would appear as if coins, government notes, bank notes, cheques, bills of exchange and even first-class securities must be regarded as money. But a little thought will show that these different instruments do not all perform the functions of money equally well. *In order to be a good medium of exchange it is necessary that the money used should be accepted freely in final discharge of liability or debt throughout a community.* From this point of view there is considerable difference between the instruments broadly grouped as money. For instance, rupees in this country pass from hand to hand with complete freedom. So do Government Currency and Reserve Bank Notes. But the notes will circulate freely only so long as people continue to believe that they are convertible without question on demand into rupees. Cheques, on the other hand, circulate only amongst those who are assured of the credit of the drawer (assured that they will be cashed by the bank on which they are drawn). Bills of Exchange, *hundis*, etc., have a still more limited circulation. But there does not seem to be any logical reason why all these media of exchange should not be called money in so far as they do perform the functions of money.

§3. Functions of money.

(i) *Money acts as a medium of exchange.*—It is a means of transferring, from one party to another, command over commodities in general (purchasing power), thus facilitating exchanges among the members of a society and enabling division of labour to work out its results smoothly.

(ii) *Money functions as a common measure of value.*—Just as we measure the length of a piece of cloth by means of the yard-stick, so we measure the value of utilities by the measuring rod of money. By stating the prices of different utilities (i.e. by stating their values in terms of

¹ See §3 below.

a common standard, money), it is clear that we facilitate the exchange of one utility against another.

(iii) *Money serves as a store of value.*—Money should be capable of performing this function satisfactorily. It should not deteriorate in value by being stored. We may want to store our money because we wish to enjoy it at leisure, or because we simply wish to save it. This function is becoming less and less important owing to the substitution of deposit banking for hoarding, and owing to the growth of the investment habit.

(iv) *Money acts as a standard of deferred payments.*—Contracts about future deliveries or payments would work out inequitably, if the money in terms of which they are made fluctuates in value. It is therefore important that our money should be reasonably steady in value.

(v) *Lastly, money serves as a reserve or basis for credit operations.*—A proper cash reserve ensures solvency and enables us to use cheaper media of exchange, such as bank notes and cheques.

§4. *Precious metals as money.* A gradual process of evolution has led to the general acceptance of the precious metals as the chief form of money, because they possess the following qualities usually regarded as necessary: (i) Portability; (ii) Durability; (iii) Intrinsic value (gold and silver are valued for their own sake); (iv) Homogeneity (so that value is in exact proportion to weight); (v) Divisibility (gold and silver can be divided and joined together again with ease. Contrast with them such a thing as a diamond. It cannot be divided without losing its value); (vi) Malleability (the metal should be capable of being easily hammered into any form and receiving any kind of stamp guaranteeing its quality and value); (vii) Cognizability (no inferior metal can be passed off as gold or silver, because they are so easily recognized); (viii) Stability of value (gold and silver—particularly gold—are relatively stable in value, because, owing to their great durability, the stocks of the world supply of gold and silver have gone on steadily increasing ever since man began to dig them out of the earth. The total stocks at present in existence are therefore so huge that

any year-to-year fluctuations in the quantity mined have very little immediate influence on the value of the whole. The value of other commodities like wheat depends largely on the quantity produced in any given year. Nevertheless it must be admitted that in respect of stability of value even gold has been found to be more unstable than is to be desired).

§5. Standard coins. The standard or the principal coin is the chosen coin adopted as the unit in the monetary system, being a certain weight of gold or silver of a certain standard of fineness. Thus when the Gold Standard was functioning in Great Britain, before 20 September 1931, the gold sovereign having a weight of 123·27 grains 11|12 fine (or 113·01 grains troy of pure gold) was the standard unit of value, all other values or prices being reckoned in terms of it. A standard coin has the following characteristics: (i) Its value as metal is the same as its value as coin. For example, the gold sovereign in pre-war England was officially equal to twenty shillings. If it was melted, one could always have twenty shillings in currency in exchange for it. (ii) The standard coin is also unlimited legal tender, i.e. it can be used in final discharge of any liability. (iii) Usually again the mints are open to free coinage of the standard metal.

§6. Token coins. Token coins are so called because they are *tokens* of value, having an official purchasing power which they do not intrinsically possess. They are made of a different metal (e.g. nickel or bronze) from the standard coin and are dependent on the latter for their nominal purchasing power. They are intended to serve as subsidiary money for making small payments. Token coins offer a contrast to standard coins in all respects and possess the following characteristics: (i) Their intrinsic value is less than their value as metal. (ii) Token coins are limited legal tender. In England the silver shilling, which is a token coin, is legal tender only up to forty shillings or £2. (iii) There is no free coinage of token money. The public cannot take ingots of metal to the mints and have them turned into token coins. How many token coins are manufactured and put into circulation

depends entirely on the discretion of the currency authority. They circulate at their legal value, which is higher than their intrinsic value, because they are supplied in limited quantities and are required for the smaller transactions. In short they possess both the qualities, namely, scarcity and utility, which give value to anything.

The rupee in India is a curious mixture of token and standard coin. It is like a standard coin in that it is unlimited legal tender. It is like a token coin in that (i) its official value of 1s. 6d. sterling is very much more than the market value of the 165 grains of pure silver which it contains, and further in that (ii) it is not freely minted.

§7. **Free coinage, gratuitous coinage, seigneurage and brassage.** The conversion of metal into coins is now everywhere a function of the State, which undertakes it mainly for ensuring public convenience by maintaining uniformity of coins. For this purpose every Government maintains one or more mints (e.g. India has mints at Bombay and Calcutta).

Free coinage in its technical sense refers to the right of any holder of bullion to have it converted into standard coins at a fixed rate and without any limit of amount. For example, mints in India were open to the free coinage of silver into rupees from 1835 to 1893. In 1893 the mints were closed to the coinage of silver except on Government account.

Gratuitous coinage (which should be carefully distinguished from *free coinage*) means that the State levies no charge for conversion of bullion into coins at the mint. For example, until the passage of the Gold Standard Act of 1925, in Great Britain gold bullion was converted into sovereigns for the public without any charge, the expenses being borne by the Government.

Seigneurage and brassage or mintage.—The term 'seigneurage' is ambiguous. It ordinarily means the charge levied by a Government on coinage. When the charge is just equal to the actual cost of coinage, it is referred to as brassage or mintage. The term 'seigneurage' sometimes means the special profit made on token coins which are issued by the Government at a legal value

higher than their bullion value (e.g. the British shilling or the Indian rupee).

§8. **Mint price of gold.** The rate at which standard coin is given for bullion at the mint is called the mint price of the standard metal. For instance, the mint price of gold in Great Britain was £3-17-10½ per standard ounce of gold (i.e. 11/12 fine). This weight (480 grains) of gold could be converted into £3-17-10½. This corresponds to a price of £4-4-11½ per ounce of fine or pure gold. The sovereign accordingly contains 123.27447 grains of standard gold, or 113.0016 of pure or fine gold. Under the Gold Standard Act of 1925, which established the Gold Bullion Standard in Britain, only the Bank of England was entitled to get sovereigns issued in lieu of gold bullion.

§9. **Legal tender.** Money certified by law to be valid for the final discharge of debts of any amount is called (unlimited) legal tender money. Standard money is usually full or unlimited legal tender. Token money, on the other hand, is limited legal tender. For example, the sovereign is full legal tender, but the shilling is legal tender only for forty shillings at a time. The rupee and the half-rupee—though tokens—are unlimited legal tender, but the nickel coins are legal tender up to one rupee only.

§10. **Gresham's Law.** Gresham's Law states that if good and bad money are circulating together, the bad money will eventually drive out the good from circulation. If one has the choice of paying by means of sound full-weighted coins or the coins that are defaced or light, one will naturally prefer to part with the latter. This assumes that no difficulty is being experienced in getting people to accept payment in the bad money (which though bad is legal tender just as much as the good money). Under these circumstances, the good coins will be withdrawn from circulation, because people will prefer to use them in arts, for ornaments, for hoarding and for export. In these uses the value of the coins is simply the value of their metallic contents. The value of good coins as metal is greater than that of bad coins. But as money both have precisely the same value.

Gresham's Law also applies to (i) *Bimetallism*, the

system under which coins of gold and silver circulate together, and (ii) *a depreciating paper money circulating side by side with metallic money*. However, if total currency is sufficiently limited, people may find that bad and good coins and money are both necessary for the purpose of trade.

§11. **Monetary standards.** We describe below the principal types of monetary standards :

(i) *Monometallism or the Single Standard.*—Under this system, one metal alone—generally either gold or silver—is freely coined and is full legal tender ; while for the sake of making small payments baser metals are coined into token coins at the discretion of the Government and made legal tender to a limited extent. According as the freely coined (or the standard) metal which is selected as the standard unit of value is gold or silver, we have (a) Gold Monometallism or the Gold Standard or (b) Silver Monometallism or the Silver Standard. India was under silver monometallism between 1835 and 1893, as was China until recently.

(ii) *Bimetallism or the Double Standard.*—The essence of bimetallism is first, that both gold and silver are used as standard money or standard units of value ; secondly, that both are unlimited legal tender ; thirdly, that both are given the privilege of free coinage ; and fourthly, that there is generally a fixed legal (or mint) ratio between the value of the two metals at which it is intended that they should circulate. Thus both gold and silver are accorded equal monetary status under bimetallism. Till its abandonment in 1874 by France and a number of other European countries, bimetallism was the leading monetary system of the western world. The principal drawback of the system is the periodic disturbance caused by changes in the market ratio under the influence of Gresham's Law. The relatively cheaper of the two metals drives out the other one and in practice the system works out as an alternating standard of gold or silver instead of a truly bimetallic standard.

(iii) *Paper Standard, or Managed Currency Standard.*—The third principal monetary system is the Paper or the

Managed Currency Standard. Under this system the currency consists of paper and the currency authority does not bind itself to convert it into gold.¹

§12. The Gold Standard. The Gold Standard is so called because under it gold is the measure of values of goods and services, and all debts are in the last resort payable in gold. A country is said to be on the Gold Standard when it maintains its monetary unit (the pound sterling in the United Kingdom, the franc in France or the dollar in the U.S.A.) at a value equal to that of a definite weight of gold of a certain fineness.

Before the war this equivalence was generally secured by the adoption of that form of the Gold Standard which is known as the Gold Currency Standard. Under this form gold coins of a certain prescribed weight and fineness (e.g. the British gold sovereign weighing 123.27 grains 11/12 fine) were actually used as currency. Paper money (e.g. the Bank of England notes in England) was made convertible into gold coins on demand. At the same time free coinage of gold, free melting of gold coins and free export and import of gold were allowed. The currency unit was thus maintained at a fixed gold parity, and gold tended to have the same value all over the Gold Standard area.

Until recently, the form of the Gold Standard, or gold monometallism, generally prevalent, was that of a Gold Currency Standard described above, being first adopted by Great Britain as far back as 1816. The force of necessity during the war as well as advance in economic thought have now made people realize that actual gold coins passing from hand to hand are an unnecessary luxury and that we can have all the essentials of a Gold Standard without gold coins.

Two other arrangements, namely, the Gold Bullion Standard and the Gold Exchange Standard have thus come to be admitted as genuine forms of the Gold Standard, which are more economical than the Gold Standard of the orthodox type. Under the Gold Bullion Standard,

¹ See §§14-15.

while gold is the measure of value, it no longer functions as a medium of exchange. Bank notes which are legal tender are convertible into gold bars (but not gold coin) at a fixed rate. Gold Bullion is likewise convertible into currency, i.e. Bank Notes. Export and import of gold are unrestricted as under the Gold Currency Standard.

Under the Gold Exchange Standard the internal currency consists of cheap tokens of silver or paper. The internal currency is maintained at a certain fixed value in terms of gold, not by converting local currency into gold coin or gold bullion but into gold exchange, i.e. bills and drafts on some foreign centre where the gold standard is in effective operation. Thus before the war, when the Gold Exchange Standard was in operation in India, the value of the rupee was fixed at 1s. 4d., and, because England was on a gold basis, 1s. 4d. stood for a definite quantity of gold.¹ There is a good deal of prejudice against the Gold Exchange Standard, since it entails considerable management and involves the location of reserves abroad. Its principal merit is that it secures a further economy in the use of gold.

§13. Merits and drawbacks of the Gold Standard. The principal merit of the Gold Standard is its simplicity and the protection it affords against the evil of inflation. Another advantage of the Gold Standard is that owing to its universal acceptability all over the world it becomes an international money standard and ensures the benefit of stability of foreign exchanges. It is also the most stable standard so far used, although it has been argued that over long periods gold does not possess stability of value in terms of goods and services. Changes in its output do ultimately affect prices, causing them sometimes to rise (e.g. during the period 1895-1914) and sometimes to fall (as since 1929).

The breakdown of the Gold Standard during the war

¹ The present monetary standard in India is the Sterling Exchange Standard, with the rupee linked to sterling at 1s. 6d. Since English currency is no longer on a gold basis, the rupee does not stand for a definite quantity of gold.

and again since 1931, as also the maldistribution of gold in recent years, are quoted as evidence of its weakness. The Gold Standard is in the melting-pot today and its future is uncertain.

PAPER MONEY

§14. Paper money: its advantages and limitations. It now remains to consider the third principal monetary system, namely, the inconvertible or Managed Paper Currency Standard.

In many advanced countries of the world paper money, which is usually issued by the Central Banks, constitutes an important part of the circulating medium.

The advantages of paper money are obvious. It is convenient to handle, readily portable, and it is, of course, very economical. It can be issued in any convenient denominations, small or large. It may also be said to be homogeneous. *Prima facie* its value can be kept more stable by conscious regulation of its quantity than that of metallic money, whose supply is dependent on the blind forces of nature. The greatest danger of paper money, however, is the temptation to overissue it until it becomes inconvertible and at times absolutely worthless—as in the case of the mark notes, before the German currency was stabilized in 1924. A worthless paper currency inflicts great hardships on the country and does serious harm to its credit. On the other hand, if it is well managed and overissue is avoided, it is capable of doing a great deal of good to the business world and of effecting much economy in the use of precious metals. Paper money, even when it is otherwise satisfactory, is, of course, recognized only in the particular country which issues it. Unlike gold money, it is not accepted all over the world.

§15. Convertible and inconvertible paper money. Paper money falls under two classes: (i) Convertible paper money, called fiduciary or credit paper money, and (ii) inconvertible paper money, called also fiat paper money.

(i) In the case of convertible paper money, the issuing authority (bank or other) promises to pay a specified

sum of metallic money or gold bullion on demand or presentation of the notes. They readily pass from hand to hand and are accepted by the public owing to their faith in the issuing bank or authority. Usually they are unlimited legal tender. The notes issued by the Bank of England are unlimited legal tender, even though since September 1931 they have ceased to be convertible. The Government of India currency notes (transferred to the Reserve Bank of India in 1935) and the new Reserve Bank notes are convertible into rupees as well as being legal tender.

(ii) Although in outward form fiat or inconvertible paper money may be a promise to pay a certain sum of metallic money, it is generally understood or known that the issuing authority has not the intention or the ability to keep the promise. This often happens in time of war or some other grave political unsettlement. The German mark, and the French franc notes issued during the war of 1914-18 are instances in point. They show how under the stress of some kind of crisis, fiduciary or convertible bank notes may degenerate into inconvertible paper money by State fiat or law which authorizes the bank of issue to suspend gold payments for its notes. The dangers of paper money are particularly associated with this form of it.

§16. Value of money. We said above that one of the things we expect from good money is that it should be a stable standard of value. Just as the yard-stick—our measure of length—should not itself vary in length, so the value of whatever is chosen to function as money should not fluctuate. By 'value of money' we mean the quantity of goods and services it will buy. If with the same amount of money we are able to buy more of things in general, in other words, if commodity prices fall, this means that the value of money has risen. Similarly, if with a given amount of money we can buy less, that is, if commodity prices rise, this means that the value of money has fallen (Rise of prices=Fall in value of money; Fall of prices=Rise in value of money).

§17. **The Quantity Theory of Money.** The Quantity Theory of Money in its orthodox form states that the level of prices varies in direct proportion to the changes in the quantity of money, or alternatively that the value of money varies in inverse proportion to its quantity. In other words, it is the quantity of money that determines the level of prices. If there are a hundred objects to be exchanged and a thousand pieces of currency, all the goods being offered against all the currency, it follows that each commodity will exchange for ten units of currency. The proposition in this form depends upon three assumptions: (i) Every exchange of goods is accompanied by an exchange of money. (ii) Money is used for no other purpose than as a means of exchange. (iii) All the money in existence is in circulation and all the goods are offered for sale.

Obviously in the actual world these assumptions hold good only partially and the Quantity Theory has to be modified so as to fit the facts:

(i) The first modification is to widen the meaning of the term 'money' so as to include not only the metallic currency but all credit instruments such as notes, cheques and bills of exchange, which actually circulate and do the money work and the volume of which also influences the general level of prices.

(ii) Further, by the volume or quantity of money, we must understand not merely the physical quantity, but also the rapidity with which money changes hands. Increased rapidity or velocity of circulation will raise prices just as surely as increase in the quantity of money as ordinarily understood.

(iii) Again, it is clear that only that portion of money which is used as a means of exchange must be taken into account. If it is used for other purposes (e.g. metallic money may be used for ornaments or bank cash reserves) it cannot be regarded as part of the available money and therefore can have no influence on prices.

(iv) Similarly we must exclude from consideration any money which may not happen to be in circulation but may be merely hoarded.

(v) The quantity of exchanging to be done (quantity of goods to be exchanged multiplied by the rapidity with which they are exchanged) constitutes the demand for money. The larger the demand, i.e. the volume of trade, the greater the value of money (i.e. the lower the price level), other things remaining the same; and vice versa.

It will thus be seen that prices are a resultant of a large number of factors. And though we can single out each factor and say how it will by itself influence prices, the final result in any given case will depend on how the other factors are working.

SUMMARY

If there were no money we should have to fall back on barter, which is a most clumsy and inconvenient method of exchange.

Money functions as (i) a medium of exchange; (ii) a measure of value; (iii) a store of value; (iv) reserve for bank credit; and (v) a standard of deferred payments.

In order to be able to perform these functions satisfactorily, the money-material should preferably possess all the following qualities: (i) Portability, (ii) Durability, (iii) Intrinsic value, (iv) Homogeneity, (v) Divisibility, (vi) Malleability, (vii) Cognizability, and (viii) Stability of value.

Of all things tried so far, the precious metals (gold and silver) have been found best to fulfil these requirements.

A *standard coin* is (i) a coin of which the contents are defined by law; (ii) its face value is the same as its intrinsic value; (iii) it is unlimited legal tender; and (iv) it is usually freely coined.

Token coins are (i) limited legal tender; (ii) not freely coined; and (iii) their intrinsic value is smaller than their face value. They are required for small payments and *are issued in limited quantities*.

Free coinage means the right of any holder of bullion to have it converted into (or exchanged for) standard coins at a fixed rate and without any limit of amount.

Coinage is *gratuitous* when there is no charge levied for conversion of bullion into coin at the mint.

Seigneurage generally means the charge, if any, levied on coinage. Sometimes the term 'seigneurage' is used to indicate the profit on the issue of token coins. The term 'brassage' or 'mintage' is used when the charge just covers the actual cost.

The *mint price* means the rate at which standard coin is given for bullion at the mint.

When any kind of money is said to be *legal tender* (or *full or unlimited legal tender*), it means that it can be legally used for the final discharge of obligations without limit of amount. When it is

said to be *limited legal tender*, it means that nobody can legally be compelled to accept it for payments beyond a certain amount stated by law.

Gresham's Law states that when good and bad money are circulating together, the bad money eventually drives the good money out of circulation. The law applies not only in the case of good and bad coins of the same metal but also to conditions arising under bimetallism and when a depreciated paper money is circulating side by side with metallic money.

Under *monometallism* standard coins only of some one selected metal are in circulation. We have *bimetallism* when there are *standard coins* of two metals (gold and silver) in circulation, with a fixed legal ratio of value between them. Under the *Paper* or *Managed Currency Standard* only paper is in circulation without any guarantee of convertibility at a fixed rate into the standard metal or standard coins.

A country is said to be on the *Gold Standard* when all values are measured in gold and the standard monetary unit is always maintained at a certain defined value in gold.

A Gold Standard with actual gold coins in circulation is called the *Gold Currency Standard*. Under the *Gold Bullion Standard* no gold coins are in circulation, but all legal tender currency is convertible into gold in the form of bars at a fixed rate. Gold is similarly convertible into legal tender currency.

Under the *Gold Exchange Standard* (as in India before 1914), the internal currency consists of cheap tokens of silver or paper. The internal currency is maintained at a certain fixed value in terms of gold by providing for its convertibility into gold exchange, i.e. bills and drafts on a foreign centre where the gold standard is in effective operation. Arrangements are also made for converting gold into local currency.

The Gold Standard, in spite of its difficulties and inconveniences, is still the most satisfactory and the least risky system of all.

At present most of the important modern nations have a *Managed Paper Currency Standard*. It is cheap and its quantity and therefore its value are more susceptible to conscious regulation than is the case with the precious metals. But it is liable to be a curse if the temptation to overissue is not firmly resisted. This applies particularly when we have fiat or inconvertible paper money. In the case of fiduciary or convertible paper money, the principal precaution against its depreciation is to maintain a sufficiently strong reserve for ensuring convertibility.

The *Quantity Theory of Money* states that the level of prices varies inversely in direct proportion to changes in the quantity of money. This is true subject to certain qualifications and assumptions.

QUESTIONS

1. Explain the inconveniences attendant upon barter and show how these are removed by the introduction of money.

2. Examine the functions of money and show how production and exchange are greatly facilitated by the use of money.
3. What are the qualities of a good money material?
4. Distinguish between standard and token coins and clearly bring out their respective characteristics.
5. Explain the distinction underlying the following: (i) free coinage and gratuitous coinage; (ii) seigneurage and brassage; (iii) mint price of gold and market price of gold.
6. Give a clear exposition of Gresham's Law.
7. What are the essentials of the Gold Standard? Distinguish between its various forms.
8. Discuss the strong and weak points of the Gold Standard.
9. What are the essential conditions for Bimetallism?
10. Distinguish and explain the principal forms of paper money. Indicate the advantages of a good system of paper money.
11. Set forth the Quantity Theory of Money and explain the qualifications to which it is subject.

Chapter IX

CREDIT AND BANKING

I. CREDIT

§1. Nature and characteristics of credit. Among civilized men economic transactions are largely based on mutual credit or faith. Many people, for example, entrust their money to banks in the faith that when they want it back, the banks will be willing and able to return it. Again, a very large volume of buying and selling takes place not on a basis of cash but of credit (that is, a promise to pay in future). The shopkeeper allows us to run up bills because he has confidence that we shall discharge the bills at a future date. In a well-constituted State, the aid of law also can be invoked, if necessary, to enforce the fulfilment of these promises—implied or explicit.

‘Credit is an exchange or transaction which consists in the temporary transfer of the useance of wealth in the form of concrete goods or a fund of capital. The essence of credit is the right of enjoying something, in most cases, money, the ultimate economic title to which belongs to another’ (Seligman). Credit is thus an exchange of present for future wealth; and since in most cases the thing lent is money, credit nowadays is virtually a contract for the future delivery of money by the borrower to the lender. Time and confidence are the two essential features of credit.

According to the use made of credit we distinguish between productive credit and unproductive (or consumption) credit. For example, when the Indian peasant borrows for marriage expenditure, credit is used unproductively. But if he borrows for land improvement or for meeting cultivation expenses, credit is productively used.

§2. **Credit instruments.** The promise to pay in future takes various forms. The principal credit instruments are promissory notes, cheques and bills of exchange.

A *promissory note* is a written promise by the debtor to pay a certain sum of money to the creditor, either on demand or at the expiration of a specified period. The creditor or the 'payee' can endorse (sign) the note and thus make it negotiable or transferable. Many of the loans granted to ryots in India by money-lenders are supported by such promissory notes. Another important class of promissory notes comprises the currency notes issued by central banks.

Next we have *cheques*. A cheque is a written order signed by a depositor—an individual or a firm—on his bank, ordering the bank, on demand, to pay a certain sum of money to a third person or to the drawer himself or his order, or to the bearer. Sometimes a cheque is crossed, i.e. two lines are drawn obliquely across the cheque. Like the ordinary cheque, the crossed cheque is also drawn upon a bank, but it can be paid only to the bank to whom it is crossed. Such a cheque is generally carried to account and is safer than the ordinary cheque; even if it is stolen, it is of no use to a thief since only the bank in whose favour it is crossed can obtain payment on it.

A *bill of exchange*¹ is an order by one person or firm (called 'drawer') drawn on another person (a firm or a bank, called 'drawee') instructing the latter to pay a certain sum of money for value received to a third party or to the drawer (called 'payee'). But, unlike a cheque, a bill of exchange is not necessarily payable on demand or at sight, but at some future date, it may be after thirty days, or sixty days, or ninety days, but generally not longer than six months. It is called a 'sight bill' if the payment is to be made as soon as the drawee has seen it (i.e. on demand). If the payment is to be made at the expiration of a fixed period it is called a 'time (usance) bill'. The person on whom the bill is drawn may either accept the

¹A *hundi* is a variety of the domestic bill of exchange in India.

bill by signing it as 'Accepted' or decline to make payment (signing 'Protested'). The acceptor becomes legally liable to make the payment due on the bill. If the drawer and the drawee are in the same country the bill is called a domestic bill; if in different countries, it is called a foreign bill (an export or import bill).

§3. **How credit economizes the use of metallic currency.** A vast volume of transactions is conducted by means of cheques and bills of exchange, and a great economy in the use of the precious metals as currency results. This is facilitated by two devices. In the first place, both cheques and bills of exchange (as also promissory notes) are negotiable, i.e. they can be transferred by the payee or the person in whose favour they are drawn by endorsement or by mere delivery to another person. Thus before a cheque or a bill of exchange is finally cashed or 'retired', it may have passed a number of times from hand to hand, being used like money for discharge of obligations. Secondly, there is the device of the 'clearing house', which is described below.

§4. **Clearing house system.** In most of the big banking centres like London, New York, Calcutta and Bombay, there is an institution called the clearing house, on which are represented the principal banks in the centre. This organization performs the function of offsetting cross (*contra* or mutual) obligations in the form of cheques on each other received by the various banks in the course of their day's transactions. The leading bank of the place (generally the Central Bank) presides over the clearing house and acts as a bankers' bank, and as the other banks keep an account with it, it can adjust in its books the deficit against or balance in favour of the various member banks offsetting the different claims of the banks amongst themselves. The member banks usually keep certain balances with the Central Bank and pay the difference by a draft on the latter. Thus the necessary adjustments are effected by book entries without any cash changing hands. In the London clearing house, for example, barely 1% of the cheques is actually cashed.

§5. **Economic functions of credit.** (i) The principal use of credit is that it enables men of enterprise and initiative to embark upon large-scale ventures on borrowed capital. It mobilizes the existing capital, i.e. makes its more effective use possible. It enables production to be initiated long in advance of demand, that is, in advance of the sale of the product to the consumer. (ii) It transfers capital from those who cannot or do not wish to use it themselves to those who have the desire and the capacity to use it profitably. Further, some businesses are liable to come to a standstill unless through credit a continuous supply of capital is ensured. Credit may also be said to promote the progress of invention because the introduction of inventions and new processes requires capital, the supply of which is facilitated by credit.

(iii) Thirdly, as already seen, credit enables considerable economies in the use of gold (metallic money) to be effected, and provides convenient media of exchange, such as bank notes, cheques and bills of exchange.

Like every human device credit is liable to be abused. If the borrower uses credit recklessly and wastefully he inflicts ruin both upon himself and on the lender. Moreover, there is the danger that credit may be issued to excess by the banks (who are the principal dealers in credit today) so that the economic stability of society is endangered and speculation encouraged. Overproduction may ensue as one of the evil results. Hence the need for careful regulation.

II. BANKING

§6. **Banking: definition and functions.** Banking occupies a most important position in the modern world. Banks are dispensers of credit and we have examined the different ways in which credit serves the community and keeps the wheels of commerce and industry revolving.

Banking means the business of dealing in credits, and a bank means an institution whose main business is receiving deposits from the public and on the basis of them making advances and loans in such a manner as to make a profit for itself.

The functions of banks.—Modern banks perform a variety of functions, some of which are given below :

(i) Various kinds of *money dealings*, such as money-changing, shipment of money or bullion, purchase and sale of bullion. (ii) *Receiving of deposits*.—This is considered in greater detail below. (iii) *Discounting* (i.e. purchasing at present worth) commercial paper (e.g. bills of exchange and promissory notes). (iv) *Granting loans in other ways* either by advance against securities or by way of overdraft, mortgage loans, or by purchase of shares in industrial companies. (v) *Issue of bank notes*.—This function, as we shall see later, is nowadays virtually restricted to the Central Bank of Issue. In the eighteenth century it was regarded as an essential function of all banks. (vi) *Dealings in foreign exchange*. (vii) *Performing agency functions* on behalf of clients, such as (a) safe custody, sale or purchase of securities; (b) safe custody of other valuables; (c) collection of dividends and interest for clients; (d) acting as correspondents and clearing agents for other banks; (e) issuing letters of credit to travellers; (f) acting as trustees, executors, attorneys; (g) serving as bankers to joint-stock companies; (h) the Central Bank of a country acts as the agent to the Government and performs banking functions for the Government.

§7. *Different types of banks.* It must not be imagined, however, that all these functions are performed by every bank. There is a division of labour and specialization here as elsewhere. Thus what are known as commercial banks accept deposits for short periods and lend credit also for short periods (for the current finance of trade and industry) in England, the U.S.A. and India. As distinguished from these, there are the industrial banks, like those in Japan, which extend long-term finance, i.e. lend money for long periods to industrial concerns and raise their working capital by debentures. Some banks, as in Germany, are of the mixed type and combine ordinary commercial banking with industrial finance. Certain banks specialize in land mortgage banking, some in savings banking, some in co-operative banking, some in the

financing of the foreign trade or foreign exchanges. The Central Banks are in a class by themselves. They are generally empowered to issue paper currency and their outlook is national and different from that of the ordinary banks, which are ordinary profit-making concerns.

§8. Deposit banking. The first business of a bank is to receive deposits from the public in order to increase its working capital beyond its own share capital, for the purpose of making loans and investments. There are three main classes of deposit accounts: (i) Deposits on current account which can be withdrawn by the depositor on demand; (ii) Deposits on fixed account which are kept with the Bank for fixed periods ranging from one month to twelve months and in some cases for years; and (iii) Deposits on savings account which are accepted in small amounts by special Savings Banks or by Commercial Banks having Savings Banks departments. Withdrawal of savings deposits is permitted on a limited scale. Banks pay a lower rate of interest on the deposits which they receive than they charge to the customers who borrow from them. This difference constitutes their profit. Whether deposits consist of money in cash or of credits, the bank is always bound to pay in money, whenever called upon to do so, and it must therefore maintain a sufficient cash reserve to meet all demands.

It may be pointed out here that the maintenance of adequate cash reserves is the very *ABC* of sound banking. A bank must be ready at all times to meet its liabilities to depositors on pain of having to declare insolvency. The failure of one bank adversely affects the position of other banks although their position may be sound. Particular care is therefore necessary to secure prudent and cautious management. The law in some countries, as in the U.S.A. and since 1937 in India, imposes an obligation upon banks to hold a certain minimum proportionate cash reserve. Such regulation of banking is essential in the case of a country like India where modern banking is still in its infancy.

§9. Issue and regulation of bank notes. Although in the earlier stages of modern banking development the

issue of bank notes was considered indispensable for the growth of banking, the rapid development of deposit banking and the preference of the business community for deposit credits made the issue of bank notes less necessary. So also a better appreciation of the necessity of regulating the issue of bank notes resulted in the curtailment of the right of issue, which was at first entirely free. Free competition among banks in the matter of note issue came to be looked upon as undesirable both as leading to the evils of diversity and multiplicity of notes and of the abuses of overissue. A virtual monopoly of issue in favour of either a State bank (as in Russia and Finland), or of a private bank (as in England, France, Germany and India) is now the system adopted in most countries. Even in the U.S.A., where a number of banks were at one time allowed to issue notes, the right is now being centralized in the hands of a dozen banks, called Federal Reserve Banks, by the Federal Reserve Act of 1913.

It is now universally recognized that some sort of regulation of the issue of bank notes by law is necessary in the public interest in order to prevent overissue of note currency. There are two principal methods of regulating note issue: (i) The first is the *fixed fiduciary issue system* of which Great Britain, which first adopted it in 1844 under the Bank Charter Act of that year, affords the standard example. Under this system the Bank of England is authorized to issue notes against securities to an amount fixed by Statute. This is fixed at £260,000,000 by the Act of 1928. Any additional notes over and above this limit have to be secured by a gold backing of 100 per cent. This system undoubtedly ensures safety but only at the cost of economy and elasticity.

(ii) The second method is the *proportional reserve system* which now prevails in the continent of Europe, the U.S.A., South Africa and India. Under this system the notes are secured by a minimum *percentage* of gold and gold securities laid down by Statute. This percentage is 40 in India.

These minima may however be disregarded for short periods with the consent of the Government on condition that the issuing bank pays a tax reckoned on the amount of the deficiency, the rate of the tax being made to rise steeply as the deficiency rises. All these precautions are intended to discourage excessive issue of notes. The principal merit of the proportional reserve system is that it is more elastic and economical than the fixed fiduciary system and therefore we find it adopted by the great majority of the countries of the world.

§10. **Central Banks and their functions.** Most of the leading countries of the world possess Central Banks at the head of their banking systems. In April 1935 India established such a bank, which is called the Reserve Bank of India. The functions of these banks are as follows :

(i) The Central Bank is mainly a *bankers' bank*. It offers rediscounting facilities to its member-banks and thus makes credit available to them. In some countries it also serves as the custodian of the country's banking reserves, the smaller member-banks—either as a matter of convention as in England or as a matter of law as in the U.S.A. or India—keeping a certain percentage of their deposits with the Central Bank.

(ii) The Central Banks usually act as bankers to the Government and conduct banking business such as the receipt of revenue, Government disbursements, borrowing operations, and remittances.

(iii) The Central Banks issue notes and regulate credit. Since the Central Bank has to supply the market with cash or take bills or securities off its hands, it is very desirable that it should have the monopoly of note issue. The principal legal tender currency today in countries like England is the bank note.

(iv) *Stability of foreign exchanges.*—The Central Bank is also responsible for maintaining the stability of the external value of the currency unit.¹ It has to arrange to buy or sell foreign exchange or gold so as to control

¹ Thus the Reserve Bank of India is required to maintain the exchange value of the rupee at 1s. 6d. sterling.

directly the exchange rates or change its bank rate¹ so as to produce an indirect effect on the rates of foreign exchange.

(v) *Internal stability*.—One of the recognized functions of a Central Bank today is to keep the internal price level stable by a proper regulation of the volume of currency and credit, and we have already stressed the importance of this function.

SUMMARY

CREDIT

Many economic transactions in modern civilized societies are based on trust or *credit*. Credit is commonly opposed to cash. Things are transferred in exchange for a *promise* to pay in future. There are various forms of credit instruments in use, e.g. promissory notes (including Government currency and bank notes), cheques and bills of exchange. All of them serve to economize the use of the precious metals as money. The cheque system is specially effective in this connexion when associated with clearing-house arrangements. Credit is vital to large-scale transactions in commerce and industry. It also ensures effective use of the capital available in the country. Credit requires careful regulation; otherwise it will give rise to various evils like speculation and overproduction.

BANKING

Banks are the principal managers and dispensers of credit. Their credit is mainly based on the deposits which they receive. Ordinary commercial banks can give only short-term loans. Industrial banks and land mortgage banks are special types of banking institutions which undertake to provide long-term finance.

Receiving of deposits of various classes such as current, fixed and savings deposits is one of the main functions of a commercial bank. Issue of notes is no longer one of the ordinary functions of such a bank. An adequate reserve must be held by each bank to meet all its obligations and thus win public confidence.

The *issue of bank notes* is nowadays a function of a State bank or a private bank closely associated with and controlled by the State.

For preventing the evil of an overissue of notes, some restriction on the power of issuing notes is necessary. This is done either by limiting the fiduciary issue which need not be supported by

¹ The bank rate is the official rate charged by the Central Bank for the discounting or rediscounting of bills of exchange presented by the member-banks. The bank rate is raised to restrict and lowered to expand credit.

metallic reserve, or by prescribing a minimum percentage metallic (gold) reserve. The latter system is more elastic than the former.

The need for *Central Banks* in order to secure financial stability is now generally recognized. Central Banks are described as bankers' banks. They are expected to supply the credit needs of the other banks; they are the custodians of the country's banking reserves; and they see to it that these reserves do not get unduly depleted. They perform various banking and agency functions for Governments, and they are generally assigned the function of note issue to make their control over currency and credit effective. One of the important aims of central banking policy is to secure internal stability of prices by a regulation of the volume of currency and credit.

QUESTIONS

1. Elucidate the nature of credit and bring out its main characteristics.
2. Explain the principal instruments of credit.
3. What are the services rendered by credit to society? Also indicate its abuses.
4. Describe the various functions performed by modern banks.
5. Distinguish between the various classes of deposits and explain the working of the cheque system.
6. Review the principal methods of regulating issue of bank notes in the different countries of the world, including India.
7. What are the main functions performed by a Central Bank?

Chapter X

TRADE AND TRANSPORT

I. TRADE

§1. International trade compared with domestic trade. International exchange, it might be urged, is in its essence not different from the domestic exchanges which take place within a nation. Although we have got into the habit of talking of India's trade with England or Germany's trade with Russia, and so on, the bargains are not normally between one country as a whole and another, but between one individual or firm in a country with another individual or firm in a foreign country. The parties, no doubt, do not belong to the same country, but this does not alter the fact that the principles underlying the exchange are fundamentally the same as if it had occurred between people living in the same country. Both the parties to the exchange enter into it voluntarily and each believes that on the whole he gains by it. Otherwise, why should he enter into the transaction at all?

There are, however, certain features which distinguish international from domestic trade. The most important difference is that the forces of supply and demand do not operate so freely in determining international as in determining internal exchange.

Within any given country labourers move from place to place with comparative ease, and this movement helps to bring about a certain uniformity in the level of wages throughout the country. But people do not move so freely from one country to another. In order to take advantage of higher wages, it would be most unusual if an Indian labourer, for instance, were to transfer himself to South America. Various things come in the way of such free movement—attachment to one's own country, difficulties of language, differences as regards legal practice

and as regards social and political customs and institutions. What holds good of labour also applies to capital, though in a smaller degree. The habit of investing abroad has grown in recent times. But even now people generally prefer to invest their money in their own country and require a special inducement to invest it abroad. The result is that considerable differences may persist in profits earned by capital as between one country and another. Within the same country, on the other hand, profits tend to approximate to the same level from place to place, and from industry to industry.

Again, trade between different countries is hampered by the existence of import duties, whereas normally we do not have to pay a duty when we send commodities from one place to another within the same country.

Another complication is that different currency systems prevail in the different countries. Payments in connexion with international trade involve the conversion of one currency into another, and give rise to the special set of problems connected with foreign exchanges. But the principal characteristic which makes it necessary to treat international exchange separately is the immobility of capital and labour between different countries.

§2. Theory of comparative costs. Suppose there are two countries *A* and *B*. In *A*, one unit of capital and labour (productive power) will make, let us say, 10*x* or 20*y*. Let us suppose that in *B*, one unit of productive power will make 10*x* or 15*y*. Then if each country devotes one unit of productive power to each of the commodities *x* and *y*, the total product will be 20*x* and 35*y* (10*x*+20*y* in *A* plus 10*x*+15*y* in *B*=20*x*+35*y*). But if each is to devote its efforts to the production of that commodity in which it has the greatest relative advantage, then *A* will devote its two units of productive power to making *y*, and *B* will devote two units of productive power to making *x*. The total combined product in this case will be 20*x* + 40*y*, i.e. 5*y* more than before. It is therefore advantageous for both *A* and *B* that *A* should make only *y* and *B* should make only *x*, and that *A* should exchange some of its *y* for some of *B*'s *x*.

The balance of advantage that emerges from this international exchange is, as we saw, $5y$ in our example. But we have yet to answer an important question. How is this $5y$ divided between A and B ? The answer to this question is that the division will be in proportion to the *intensity of reciprocal demand*. In other words, it will become a question whether B 's need for y is greater than A 's need for x . If it is greater, then A will benefit more than B from this specialization in production followed by international exchange. Clearly, however, the terms of exchange would not go beyond what each country can do by itself. For instance, taking the figures in the above example, A will not consent to part with more than $2y$ for $1x$. Because if necessary it can itself make $1x$ with the capital and labour it requires for making $2y$. B in its turn will not consent to receive less than $1\frac{1}{2}y$ in exchange for $1x$. Because with the capital and labour it requires for making $1x$ it can itself make $1\frac{1}{2}y$. The terms of the exchange will thus fluctuate between $1\frac{1}{2}y$ and $2y$ for $1x$. This is what is meant by saying that international values or terms of international exchange are determined according to the principle of *comparative cost*.

It is helpful to regard international trade as a developed form of barter. The exports of a country are the price it has to pay for its imports. Looking at the question in this manner we see at once the fallacy of regarding a decline in exports unfavourably and rejoicing when exports increase. This is one of those false mercantilist notions which appear again and again in popular arguments. A decline in exports is in itself not an evil, unless it causes a decline in imports also. If imports remain the same or increase in volume, while exports decrease, there is nothing to be sorry for. On the contrary, we ought to congratulate ourselves that for our imports we have to pay a smaller price than before in the shape of exports.

§3. Advantages and disadvantages of international trade.
Advantages :—(i) International trade enables a country to obtain commodities which it could not produce at all or could produce only with great difficulty. Thus England secures tea, sugar and cotton in this manner. Similarly,

any deficiency of the home supply of a commodity (e.g. food grains as in the case of England) can be met by foreign imports.

(ii) It brings about a more efficient employment of the productive forces of the world, since each country employs itself in producing those things in respect of which its capital and labour are relatively most efficient. Thus a country is enabled to obtain many commodities more cheaply than if it were to produce everything itself. The doctrine of comparative cost explains how this advantage is reaped.

(iii) International trade enables a country fully to exploit its natural resources which would remain unexploited in the absence of outlets abroad : e.g. jute, raw and manufactured, is produced in India largely for export.

(iv) International trade, by extending the size of the market, and promoting division of labour and rationalization of industry, tends to lower the costs of production.

Disadvantages :—On the other hand, international trade is accompanied by certain disadvantages. (i) It may sometimes lead to the sacrifice of the greater interest of the future to the smaller interest of the present. Certain valuable natural resources which may be limited and which require to be tapped economically may be exploited too rapidly and wastefully for purposes of export.

(ii) International trade may make a country dependent upon other countries and expose it to serious risk, if owing to war or other causes its trade abroad is cut off. The lamentable dependence of India on foreign imports of even daily necessities, like matches and cloth, was realized during the World War of 1914-18. This dependence is a grave matter in the case of essential requisites like food supply and means of defence.

(iii) International trade may often result in the importation of cheap but worthless and even harmful products, the consumer not being always the best judge of his own interests.

(iv) Unfettered foreign trade may adversely affect either the agricultural or the manufacturing groups of

industries and thus lead to a one-sided development of the economic life of the nation. Thus England has sacrificed her agriculture and India has become predominantly agricultural. A certain degree of diversification of the national industries is to be desired in the interests of a more stable economic life and for its beneficial effects on national character.

On a balance, however, we may say without hesitation that the advantages of international trade far outweigh the possible disadvantages and that it is quite feasible to minimize the disadvantages by a suitable regulation of foreign commerce and by the adoption of a policy of protecting suitable home industries. This is what India has been trying to do since 1923 under the policy of discriminate protection.

§4. Divisions of trade. We have already discussed the growing importance of exchange and its benefits and also pointed out that no individual, class or nation can afford to be completely self-sufficient. We are living today under a system of exchange or trade, which may be divided into two main branches: (i) External trade, consisting of (a) sea-borne trade, (b) entrepot (re-export) trade, (c) land-frontier trade; and (ii) Internal trade, including (a) coastal trade and (b) inland trade. These may now be discussed with reference to India.¹

EXTERNAL TRADE

§5. Growth of India's foreign trade. As long ago as 300 B.C. India had established trading connexions with Babylon, Egypt, Rome, Greece, China, Iran, and Arabia. This early trade was in rare and costly commodities. During the Mohammedan period her trade with countries beyond the north-west frontier was encouraged. The fateful contact established between the East and West by the all-sea route to India *via* the Cape of Good Hope gave a powerful stimulus to the sea-borne trade of India with the western countries. In the struggle for the

¹ The (foreign) trade and products of Great Britain, the U.S.A., Germany and Japan are reviewed in Appendix II.

monopoly of trade that ensued among these countries, England emerged successful, and the East India Company succeeded in capturing the foreign trade of India and incidentally became the strongest territorial power in the country. India's foreign trade began to expand rapidly after 1869, when the Suez Canal was thrown open for navigation, and the construction of a network of railways and roads in the country itself promoted the development of external as well as internal trade. The establishment of peace and order, the adoption of a policy of free trade, the removal of internal customs barriers, the great improvements in naval architecture and the rapid growth of mercantile marines in other countries contributed to the growth of India's trade. For a long time Great Britain occupied a predominant position in the Indian market, but since the close of the last century, Germany, Japan, the U.S.A. and other countries have come in as serious competitors of Great Britain. During and since the War of 1914-18, Great Britain has been losing ground, especially in the import trade, though she still continues to dominate that branch of our trade. It may also be pointed out here that during the last century the nature of India's trade underwent a radical change, and she came to export raw materials and food-stuffs and to import finished goods.

The War (1914-18) adversely affected India's foreign trade. After a temporary and brief recovery that trade received an even more serious setback as the result of the world economic depression (1929-33). Since 1933-4 a partial recovery is again in evidence.

§6. Main characteristics of India's foreign trade. The table on p. 134 shows the comparative importance of the principal articles imported into and exported from British India in 1936-7.

The most outstanding characteristic of India's trade is that the bulk of the exports consist of food-stuffs and raw materials, while the bulk of the imports consist of manufactured articles. This stands in marked contrast with the foreign trade of the United Kingdom, the bulk of whose exports consist of manufactured articles while the bulk of

the imports consist of raw materials and food-stuffs.¹ Owing to the industrial development since the War the percentage of exports of manufactures to the total exports has recently shown a tendency to increase gradually. That this tendency, however, is slight is shown by the fact that during 1936-7, 73·6% of our imports consisted of wholly or partly manufactured articles as compared with 76·6% in the pre-War period; and about 73% of the exports were raw materials and food-stuffs as compared with 76·9% in the pre-War period.

Another characteristic of India's foreign trade is that while the import trade consists of a wide range of articles, the export trade is restricted to a comparatively few great staples like raw cotton, jute, tea, oil-seeds, and food grains.

The third noteworthy feature is that Great Britain holds a predominant position in our foreign trade, especially on the import side. The imports from her amounted to 38·4% in 1936-7. On the export side, while she is the most important single customer (taking 32·2 per cent of our total exports in 1936-7), the aggregate of that trade is more evenly divided than the import trade between a number of countries. Lastly, India's foreign trade normally shows a favourable 'balance of trade', i.e. excess of exports (in merchandise) over imports.

§7. **Principal articles of imports and exports.** We shall now discuss the relative importance of commodities (i) on the import side, and (ii) on the export side (see Table on p. 134).

(i) On the *import side*, cotton manufactures still hold the place of honour, though the percentage proportion of total imports has recently fallen owing to increased production of cloth in the country itself and the disturbed political situation in recent years. The imports of cotton piece-goods mainly came from Lancashire, but latterly Japan has appreciably increased her share in the Indian market and is a serious rival of Lancashire as well as of the Indian mills. The imports of raw cotton

¹ See Appendix II.

Principal Imports and Exports of India in 1936-7¹
In lakhs of rupees

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ELEMENTARY ECONOMICS

EXPORTS

| ARTICLE | VALUE | PERCENTAGE ON TOTAL IMPORTS OF MERCHANDISE |
|----------------------------|--------|--|
| Cotton, raw and waste | 45.17 | 23.03 |
| { Cotton manufactures | 3.78 | 1.93 |
| { Jute, raw .. | 14.77 | 7.53 |
| { Jute manufactures | 27.95 | 11.25 |
| Tea .. | 20.94 | 10.22 |
| Seeds .. | 18.47 | 9.42 |
| Grain, pulse and flour | 15.38 | 7.84 |
| Metals and ores .. | 8.02 | 4.09 |
| Leather | 7.36 | 3.75 |
| Hides and skins, raw .. | 4.43 | 2.26 |
| Wool, raw and manufactured | 3.74 | 1.91 |
| Lac .. | 2.34 | 1.16 |
| Oil-cakes | 2.27 | 1.00 |
| Paraffin wax | 1.96 | 0.91 |
| Wood and timber .. | 1.77 | 0.87 |
| Fruits and vegetables | 1.70 | 0.53 |
| Rubber, raw .. | 1.04 | 0.49 |
| Fodder, bran and pollards | .96 | 0.48 |
| Mica .. | .94 | 0.47 |
| Tobacco .. | .92 | 0.43 |
| Coffee .. | .84 | 0.41 |
| Other articles .. | 12.27 | 6.24 |
| TOTAL VALUE OF EXPORTS .. | 196.12 | 100 |

IMPORTS

| ARTICLE | VALUE | PERCENTAGE ON TOTAL IMPORTS OF MERCHANDISE |
|---------------------------------------|--------|--|
| Cotton and cotton goods | 23.33 | 18.63 |
| Machinery and mill-work | 14.44 | 11.20 |
| Metals and ores .. | 9.69 | 7.73 |
| Oils .. | 7.25 | 5.79 |
| Vehicles | 6.58 | 5.25 |
| Instruments, apparatus and appliances | 5.19 | 4.15 |
| Artificial silk | 3.86 | 3.08 |
| Provisions and oilman's stores .. | 3.20 | 2.56 |
| Dyes .. | 3.01 | 2.41 |
| Hardware | 2.89 | 2.31 |
| Wool, raw and manufactured | 2.87 | 2.29 |
| Paper and pasteboard | 2.82 | 2.25 |
| Chemicals .. | 2.72 | 2.17 |
| Silk, raw and manufactured | 2.42 | 1.95 |
| Liquors .. | 2.40 | 1.91 |
| Rubber manufactures | 2.11 | 1.69 |
| Drugs and medicines | 2.07 | 1.65 |
| Spices .. | 1.88 | 1.50 |
| Fruits and vegetables | 1.42 | 1.13 |
| Glass and glassware | 1.28 | 1.02 |
| Other articles .. | 24.21 | 20.00 |
| TOTAL VALUE OF IMPORTS .. | 125.24 | 100 |

¹ *Report of the Trade of India, 1936-7, pp. 36 and 84.*

are also increasing owing to the growing use of superior long-staple cotton in our mills.

Next in importance are *machinery* and *mill-work*, *metals and ores* (which include iron and steel manufactures, railway locomotive engines, aluminium, brass and copper, German silver, etc.). Imports of *sugar* (mostly from Java), which not long ago occupied the second place, have rapidly declined in recent years owing to increased home production due to protection since 1931-2. They now occupy quite a subordinate place. Other articles of considerable importance are oils, vehicles (especially motor vehicles), instruments, woollen and silk manufactures, dyes, hardware, chemicals, paper, silk, liquors, rubber manufactures, glass, etc.

(ii) On the *export side*, *cotton* and *jute* are the most important commodities. The exports of raw cotton contributed as much as 23.03% of the total value of all merchandise in 1936-7. Japan is the principal buyer of our raw cotton. Other smaller buyers are the United Kingdom, Italy, Germany and China. The Lancashire mills have in recent years been making special efforts to use Indian cotton. Exports of raw cotton to Japan are at present regulated by the Indo-Japanese Trade Agreement of 1937. Exports of Indian cotton piece-goods to the Straits Settlements, Iran, Iraq, Ceylon, etc., are not very important (only 3% of the total production in India in 1936-7). *Jute*—raw and manufactured—constitutes the next important item of our export trade. It accounted for over 21% of the total exports in 1936-7.

Tea ranks next to *jute* in our export list. Nearly 80% of the total quantity of tea produced in India is exported, mostly to the United Kingdom, which purchased over 85% of our total exports in 1936-7.

The export of *oil-seeds* occupied the fourth place among Indian exports in 1936-7. The principal seeds—linseed, groundnut, copra—are exported mostly to the continental countries. The exports of linseed to the United Kingdom have increased largely owing to the 10% Ottawa preference in that market in favour of Indian linseed. The total exports of oil-seeds have diminished in recent years owing

to regulation or restriction of imports into European countries like Germany, France and Italy.

Food grains come next. Rice is the principal item under this head, others being wheat, wheat flour and pulse. Exports of *metals and ores* rank next in order of importance. Manganese ore represents about 91% of the total value of ores exported.

Hides and skins are sent to the United Kingdom, the United States, Germany, France, Italy, Japan, etc. There is not now the same demand for Indian hides and skins in European markets as in former years. Raw wool, lac, oilcakes, raw rubber, mica, tobacco, and coffee are other export articles of some importance.

§8. *Re-exports (Entrepot trade).* India has a certain amount of re-export trade. Being situated in the centre of the eastern hemisphere, she is fitted to act as a distributing centre, particularly for those Asiatic countries which have no sea-board of their own. The re-export trade is mainly in manufactured articles, especially textiles, imported from the western countries, which are taken by Iran, Muscat and East Africa. The principal article re-exported to western countries is raw wool, which is imported across the land frontier of India. The bulk of it goes to the United Kingdom. The total value of the re-export trade was Rs. 6.24 crores in 1936-7.

§9. *India's balance of trade.* A large surplus of exports over imports of merchandise is, as already mentioned, a feature of India's foreign trade. This is necessary to enable her to meet external liabilities such as interest on and repayment of sterling loans raised in England, Home Charges payable through the Secretary of State for India, dividends earned by foreign industrial companies working in India, commissions secured by foreign banking, insurance and other companies, and freight charges payable to foreign shipping companies. These items are called the 'invisible' imports (they would be invisible exports of a creditor country like Great Britain) because they are not officially recorded, unlike the imports and exports of merchandise and treasure which are duly recorded by

Customs House authorities.¹ India's average favourable (visible) balance of trade in merchandise was Rs. 78 crores in the five pre-War years, Rs. 76 crores during the five War years and Rs. 53 crores during the five post-War years ending 1923-4. After rising during the next five years to Rs. 113 crores it dropped to the low figure of Rs. 43 crores during the five years ending 1933-4. In the year 1932-3, it was only Rs. 3 crores, the smallest on record. Since then it has partially recovered, being as much as Rs. 78 crores in 1936-7. During the last seven years, large exports of gold (over Rs. 314 crores from September 1931 to May 1938) have helped to maintain the visible balance in merchandise and treasure and enabled India to meet her large overseas obligations. One of the most pressing economic problems of today is how to revive our export trade in merchandise and thus restore the favourable balance of trade so essential for enabling us to meet our obligations abroad.

§10. **Land-frontier trade.** In spite of her extensive land frontier of 6,000 miles, India's land-frontier trade is very limited owing to the existence of only a few openings or passes like the Bolan Pass on the north-west frontier. There has from very ancient times existed a certain trans-frontier trade with countries like Afghanistan, Central Asia, Iran, Nepal and Tibet. The principal imports are fruits, vegetables, nuts, raw wool, raw silk and living animals. The main exports are cotton goods, sugar, raw cotton, tea and leather manufactures.

INTERNAL TRADE

§11. **Coasting trade.** The internal trade of India falls into two sections: (i) the coastal trade and (ii) inland trade. The total coasting trade of India amounted to Rs. 161.85 lakhs in 1935-6. The coasting trade in private merchandise between Burma (which before 1 April 1937

¹ The relation of visible (i.e. recorded) exports to visible imports indicates the balance of trade of a country while that of *all* exports (invisible as well as visible) to *all* imports shows the balance of payments.

was a part of British India) and India is of special interest. Burma's imports are coal, cotton piece-goods, jute bags, pulse and betel-nut, while its exports are rice, kerosene oil, petroleum, candles, teakwood and timber. In the foreign as in the coastwise trade of India, the principal ports are Bombay, Calcutta, Karachi, Madras, Cochin, Tuticorin and Chittagong, the first five being more important than the others.

§12. **Inland trade.** India, unlike the United Kingdom, is more vitally interested in her internal trade than in her external trade, having regard to her big size, large population, vast and varied resources and the diversity of her physical and climatic conditions. The improved means of communication and transport have also greatly added to the volume of this trade. According to the official publication *Inland Trade of India for 1920-1*, the total trade was nearly Rs. 1,500 crores. This according to some critics is an underestimate. The total quantity of inland trade in the main commodities¹ was 736,839,000 maunds in 1936-7 as compared with 628,464,000 maunds in 1933-4. The importance of the inland trade is not always duly recognized, and disproportionate attention is paid to the external trade. There is a great need for a vigorous policy of fostering internal trade, especially since our external trade has latterly diminished considerably and is at the mercy of arbitrary forces which we cannot control.

The principal trade centres of India, apart from the four principal ports of Calcutta, Bombay, Karachi, and Madras, are: Cawnpore, Delhi, Amritsar, Agra, Lahore, Benares, Lucknow, Nagpur, Jubbulpore, Mirzapur, Madura, Gwalior, Dacca, Srinagar, Sholapur, Amraoti, Hyderabad (Deccan), Allahabad, Jaipur, Baroda, Bangalore and Mysore.

§13. **Commercial intelligence.** As compared with more advanced countries like Germany, Japan and the United

¹ The principal articles of inland trade are the great staples of agriculture such as grain, oil-seeds, cotton, jute, tea; by-products of agriculture such as raw hides and skins; minerals like coal, salt, and kerosene; wood and timber; and manufactures.

States, India's commercial intelligence system and trade organization are poorly developed. Increasing attention is, however, now being paid to this matter. There is the official organization consisting of the Department of Commercial Intelligence and Statistics, also the Indian Trade Commissioners in London, Hamburg, Milan, Tokyo, Mombasa and New York. Besides these there are non-official bodies like the various European and Indian Chambers of Commerce which interest themselves in the industrial and commercial development of the country. It is needless to add that accurate and full information regarding foreign and inland markets, and publicity regarding trade and production are essential for the proper expansion of our commerce and industry.

II. TRANSPORT

§14. Importance of transport. Improvements in the means of communication and conveyance of men and goods have always played an important part in the history of civilization. A good system of communication by land, water, and, we must now add, by air, is one of the most important of all the conditions for the prosperity of a nation. It breaks down the isolation of the different parts of a country and increases the contact between town and village to the mutual advantage of both. It is the very life and soul of trade and acts as a stimulus to both agriculture and industry. Improved means of communication and conveyance are essential for the free movement of men and goods, raw materials and finished products, and for the proper utilization of the resources of a country. The importance of transport from the military, administrative, cultural and social points of view is hardly in need of special emphasis. Difficulties of communication have been largely removed in modern times by railways, the telegraph, motor and other forms of transport.

India is a sub-continent and the natural obstacles in passing from one region to another are formidable. Communication often breaks down in the rainy season. Natural waterways are less important in India than in England.

Till the middle of the nineteenth century the means of communication were very defective in India. There were only very few trunk roads constructed by Indian rulers, chiefly by the Moguls. Many of the so-called roads were mere tracks and were impassable during the rainy season. They were also far from being safe. Pack animals were the only means of access to many parts of the interior. The state of communication was even more unsatisfactory in peninsular India with its rugged mountainous territory and the poor facilities for water transport except on the two coasts. The self-sufficiency of the Indian village at the beginning of the last century was mainly the result of the imperfect means of communication. A veritable social and economic revolution has been effected by the construction of a network of railways and roads from the time of Lord Dalhousie, who initiated a vigorous public works policy about the middle of the last century.

The transport situation may be considered under four main heads: Railways, Roads, Water Transport, and Air Transport.

RAILWAYS

§15. The growth of India's railway system. The history of Indian railways shows many vicissitudes of fortune. Between 1844 and 1869 railways were constructed under the old guarantee system by companies formed in England and enjoying a guarantee given by the Government of a specified minimum rate of interest on the capital invested. This system was found to be very expensive to the State, which, therefore, for a time (1869-79) followed the policy of constructing and managing its own railways. But the financial difficulties of the Government compelled them to revert to the guarantee system (1879-1900), which was modified in favour of the Government both as regards the rate of guaranteed interest and the Government's share of surplus profit. Under this system the lines constructed by the companies were declared to be the property of the State, at the end of twenty-five years, after repayment of the capital provided by the companies. In subsequent years,

when the old and new contracts with companies expired, the Government purchased the lines and either transferred them to State management (as in the case of the Eastern Bengal or Sind-Punjab Railways) or handed them over again for management to the same companies (as in the case of the East Indian and Great Indian Peninsula Railways). In this way the State came to be the owner of the bulk of the trunk lines. Until recently, however, the management was left to the companies subject to Government control, exercised through the Railway Board which was created in 1905. Between 1900 and 1914 there was rapid extension of railways especially under the programme system (adopted in 1908) whereby the Government laid down for the future the standard of £12½ million a year for capital expenditure on railways, loans being raised in England for this purpose. The railways also began to pay their way partly owing to the general economic development of the country and partly to the expansion of irrigation works in the Punjab and Sind. Between 1914 and 1921, there was a serious breakdown and deterioration of railways owing to the excessive pressure to which they were subjected during the war and to the curtailment of capital expenditure.

An overhauling of the railway policy was undertaken on the recommendation of the Acworth Committee on Indian railways (1920-1). The Committee favoured State management of the railways and also advocated construction of new lines by State agency, in accordance with strong public demand in India. Accordingly the State took over the management of the G.I.P., E.I., Burma, and Southern Punjab railways. The Railway Board was reorganized and larger funds were made available for capital expenditure on railways.

Another change in administration was the separation of the Railway from the General Budget in 1925, as recommended by the Acworth Committee in order to insure the railways being run as a commercial concern. Under the new arrangement the railways are required to make a special contribution to the general revenues. Owing to railway deficits in the recent years of trade depression,

the railways were unable to make this contribution between 1931-2 and 1936-7.

At the close of the year 1936-7 the total railway mileage open was 43,128 miles, and the capital outlay stood at Rs. 880 crores.

Under the new political constitution of India (1935), the actual administration of railways is to be placed in the hands of a *Federal Statutory Railway Authority*, which is to be the executive authority of the Federation in respect of the regulation, construction, maintenance, and operation of railways.

§16. Economic effects of railways. The railways have conferred substantial advantages on the country. They have promoted the efficiency of general administration and of military defence, and have contributed to the cultural progress of the country. Their economic effects have been equally striking. Famine relief in a country like India depends on an efficient railway system for the quick conveyance of food-stuffs to the affected areas. The railways promote economic advance, tend to equalize prices throughout the country, create new employment, and make possible a more even distribution of the population. The economic isolation and self-sufficiency of the village have been broken down by railway development. Agriculture has been commercialized, i.e. the agriculturist grows not only for subsistence, but for profit by the sale of his produce, for which he now commands a wider market owing to the extension of railways. Not only national trade but also trade with other countries has been stimulated by the facilities for rapid conveyance of goods to the ports for shipment abroad and from the ports for distribution in the interior. On the other hand, the railways have led to certain undesirable results, such as the rapid decay of indigenous industries, due to the intense competition of machine-made goods which the railways carry to the remotest parts of the country.

§17. Need for further railway development. On the whole, however, the benefits conferred by railways outweigh the injury, and speaking of the future there is more and not less need for railway development,

especially in the rural areas, which are inadequately served. India's backwardness in railway development when compared with other countries is shown by the fact that, while there are 8.2 miles of line per 100 sq. miles in the U.S.A., there are only 2.2 miles of line per 100 sq. miles in India. Along with railway construction it is also necessary to develop and encourage industries connected with railways. The railway rates policy should aim at furthering the general industrial development of the country. There exists at present a Railway Rates Advisory Committee to investigate complaints of undue preference, high rates, lack of reasonable facilities to trade, etc., and to make recommendations to the Government on these matters.

ROADS

§18. Road history. As already pointed out, good roads were few till the middle of the last century. Lord William Bentinck revived the idea of a highway connecting the north of India with Bengal. The result was the construction of the Grand Trunk Road linking Peshawar with Delhi and Calcutta.

A new chapter in the history of roads was opened by Lord Dalhousie, who initiated a more vigorous road policy. A Central Public Works Department was created, and similar departments were established in each of the provinces in 1855 replacing the old Military Boards which till then had been in charge of the roads. As railway construction proceeded apace, it became necessary to build roads to feed the railways rather than to compete with them. Trunk roads, however, came to be neglected, the Government being more interested financially in the profitable working of railways. The progressive policy of Lord Mayo and Lord Ripon with regard to local self-government, under which local control over local affairs was provided, gave some stimulus to road development. The total road mileage steadily increased and it stood at 306,717 in 1935-6.

§19. Main features of India's road system. The main features of India's road system may be briefly described.

There exist four trunk roads stretching across the country, with which most of the important subsidiary roads are linked. (i) The most famous of the trunk roads is the ancient marching route for armies, known as the Grand Trunk Road, which stretches right across the northern part of the country from the Khyber to Calcutta; the other three connect (ii) Calcutta with Madras, (iii) Madras with Bombay, and (iv) Bombay with Delhi. These four main roads account for about 5,000 out of the 82,284 miles of metalled roads (in 1935-6) in British India. Southern India is most favoured both as regards the number and the satisfactory character of its subsidiary roads. The worst-served regions are Rajputana, Sind, parts of the Punjab, Orissa and Bengal. Aridity, sparseness of population, unbridged and unbridgeable waterways, difficulties of the ground (as in the lower Himalayan reaches), lack of suitable road-building materials, etc. are some of the obstacles that have prevented more rapid progress. Besides metalled roads there is a large mileage of *kachha* (unmetalled) roads (224,433 miles in 1935-6), some of which provide quite good going for motor traffic during the dry weather.

§20. Need for more roads. Considering her size India is extremely poorly equipped with roads. The deficiency is all the more keenly felt now that motor transport is advancing by leaps and bounds and creating a new range of problems of road construction and maintenance. As against 2,500 miles of road per 1,00,000 of population in the U.S.A., India has only 84 miles. While the countryside is crying for more and better roads, much difficulty is being experienced in maintaining even the existing roads in a tolerable condition. Roads controlled by the local bodies are in a particularly bad state because of the poor resources of these bodies. The country needs a perfect network of arterial and feeder roads for the smooth conduct of her extensive internal and external trade, for the development of industries connected with the preparation of agricultural produce and for the proper exploitation of her valuable forest resources. The development of roads need not adversely affect the railways.

In fact the railways will derive considerable benefit from such feeder roads. While road motor traffic has an advantage over the railways so far as lighter traffic and short journeys are concerned, the railways will be a more convenient and economical form of transport for heavy loads and longer distances. On the whole, roads and railways are complementary to each other rather than competitive. Increasing attention is being paid to the need for co-ordination of rail-road transport and the question was discussed by a specially convened Road-Rail Conference in 1933 and by the Wedgwood Enquiry Committee in 1937. The Committee's recommendations in favour of stricter regulation of road motor transport are at present (April 1938) under the consideration of the Central Legislature.

§21. **New road policy.** A special Road Development Committee was appointed in 1927 to consider India's road problems. The Committee emphasized the necessity of a comprehensive road policy and of co-ordination of local programmes. It pointed out that road development was passing beyond the financial capacity of Provincial Governments and local bodies, and was becoming a national interest which should therefore to an increasing extent be a charge on central revenues. It also recommended that local bodies should receive more liberal financial assistance from provincial funds.

In accordance with the Road Committee's recommendations, the import and excise duties on motor spirit were increased from 4 to 6 annas per gallon in March 1929. The proceeds of the additional duty were allotted for expenditure on road development, being credited to a separate Road Development Account. The annual grant, after allotting 15% to the Government of India (till 1934 only 10%), is apportioned among the provinces on the basis of their respective petrol consumption. These grants are made for expenditure on such schemes as are approved by the Governor-General-in-Council with the advice of the Standing Committee on Roads of the Central Legislature. In order to secure coordination in road matters, periodic Road Conferences of provincial representatives with the

Standing Committee on Roads are held. This policy was placed on a more or less permanent basis in 1934.

WATER TRANSPORT

§22. **Inland waterways.** Water transport played an important part in the carriage of bulky commodities before the era of railways, and even today it continues to play by no means a negligible part in inland trade. On the whole, however, in spite of the relative cheapness and certain advantages in the carrying of large cargoes, water transport has failed to hold its own in inland trade since the advent of the railways.

Water transport falls under two divisions: (i) Inland waterways and (ii) Marine transport. Inland water transport is supplied by the great river systems of Northern India. The Indus, the Ganges and the Brahmaputra are navigable by steamers all the year round for hundreds of miles above their mouths or above the heads of navigable canals traversing their deltas. The tributaries of the Indus, the Chenab and Sutlej, are open to small craft all the year round. The rivers in the peninsula generally do not, however, lend themselves to navigation, as they are not perennial and pass through rocky beds. But the Mahanadi, the Godavari and the Kistna are navigable in their upper reaches. Inland navigation, which was largely resorted to in the old days (e.g. the Ganges was a great natural highway of commerce) has received a setback since the appearance of railways. The industrial Commission (1918) urged the coordination of railway and waterway administrations with a view to relieving the existing congestion in the railway system and meeting the needs of small-scale transport in the country.

§23. **Marine transport.** We have already referred to the extensive coastline of India. She appears by nature to be meant to be a sea-faring country and may well aspire to be one of the principal carriers of the world. Till about the beginning of the nineteenth century she could be spoken of as a considerable maritime country. She had a flourishing shipbuilding industry, and the bulk

of the commerce in the Indian seas was then carried in ships built in India. The introduction of iron-built ships, improvement of naval architecture, and the jealousy of the English shipping interests brought about the decay of Indian shipping. India's share in the coasting trade amounts only to about 25%, and in the oceanic trade only to about 2%. This highly remunerative branch of business is at present controlled by foreign shipping companies, whose competition prevents the rapid development of an Indian mercantile marine.

AIR TRANSPORT

§24. **Civil aviation.** In the post-War years civil aviation has made rapid progress, particularly in the western countries, and has initiated a far-reaching revolution in the transport system of the world.

Interest in civil aviation in India was aroused by the inauguration of a postal air mail service between Karachi and Bombay largely on the initiative of Lord Lloyd, Governor of Bombay (1918-23). The inauguration of the French and Dutch air services across India, as well as the regular weekly service between England and Karachi and the general increase of civil aviation in all parts of the world, have stimulated both Government and the public. India has also become a party to the International Air Convention, and the Government of India have appointed a Director and Deputy-Director of Civil Aviation, and a Chief Inspector of Aircraft. Private enterprise (e.g. the Tata Airways) has also come forward, and there are at present eight Aero Clubs in India for imparting instruction in aviation. The mileage of air routes in India at the end of 1935 totalled 6,395 and there are now regular internal services for mails and passengers between some of the principal towns. Air navigation is controlled by the Indian Aircraft Act of 1934. The value of aviation to business does not yet appear to be properly appreciated in India, but the prospects are not altogether discouraging.¹

¹ *Indian Year Book* (1937-8), pp. 552-5.

SUMMARY

I. TRADE

International trade results mostly from individual voluntary bargains entered into by people resident in one country with people resident in other countries. Problems of international trade have to be treated separately from problems of internal exchange because labour and capital do not move freely from one country to another as they do from place to place in the same country. The existence of tariffs and the fact that the currency systems of different countries vary also raise special questions which have not to be faced in internal exchanges.

The character and the terms of international exchange are determined in accordance with the *principle of comparative cost*. Nations engage their capital and labour in those industries with regard to which they have the highest relative advantage over other nations. More wealth is thus produced and becomes available to the countries dealing with one another in the course of international commerce. However, although all derive a benefit, the benefit is not uniform. The proportion in which the benefit of international trade is distributed among the parties depends on their relative intensity of demand for each other's goods.

International trade brings within our reach utilities not otherwise attainable, ensures the most efficient employment of the productive resources of the world and the full exploitation of natural resources, and makes production more economic by enlarging its scale.

On the other hand, it may lead to too rapid an exhaustion of the natural resources of a country, and endanger national security by fostering a habit of dependence on other nations for essential requisites. It may lead to the importation of shoddy or harmful articles. And finally it may cause economic development to be too one-sided. These evils, however, can largely be prevented by the regulation of international commerce, and the presumption is in favour of promoting its utmost expansion.

Trade, both *external* and *internal*, plays an important role in the economy of a country, as is shown by the history and growth of India's trade.

EXTERNAL TRADE

India has had *trading relations* with the other countries of the world since antiquity. During the Mohammedan period the over-land trade of India received a stimulus. The discovery of the all-sea route to India brought the western European nations into touch with India, and in the struggle for Indian trade which followed England came out as the victor. From 1850 onwards the progress of railway and road construction in India and the opening of the Suez Canal (1869) gave a stimulus to India's foreign trade. That trade was adversely affected by the War (1914-18) and by the world economic depression, but has partially recovered since 1933-4.

The main characteristics of India's foreign trade are preponderance of manufactured goods on the import side and of raw materials and food-stuffs on the export side; wide range of imports as compared with a restricted list of staple exports; predominant position of the United Kingdom, especially on the import side; and excess of exports over imports of merchandise.

The principal imports in the order of their importance are cotton manufactures, machinery and mill-work, metals and ores, oils, vehicles (motor) and instruments. Sugar now occupies a secondary position.

The chief exports are cotton and jute (raw and manufactured), tea, oil-seeds, grain, pulse and flour, metals and ores, hides and skins, wool, lac, oilcakes, etc.

The volume of India's re-export trade and land-frontier trade is at present very small.

Before the trade depression of the last eight years, India used to have a large trade balance in her favour, but owing to the serious reduction in her export trade in merchandise, in recent years this trade balance has appreciably decreased. The total balance has been maintained by large exports of gold.

INTERNAL TRADE

The internal trade of India includes the *coasting* and *inland* trade. The coasting trade with Burma is of great importance.

The internal trade of a country of India's size and varied resources is much greater than the external trade. It needs to be further developed.

The commercial intelligence system and trade organization are poorly developed when compared with those of other countries.

II. TRANSPORT

The prosperity of a nation depends greatly on a good system of communication. It breaks down economic isolation and is the very life of trade. It is essential for the proper utilization of a country's resources. The means of communication in India were very defective until the middle of the nineteenth century. There were only a few roads and natural waterways, and pack animals had to be largely used. A veritable economic revolution has been wrought since then by the construction of a network of railways and roads.

Railways.—Indian railway history has passed through various phases, the main periods being, (i) the old guarantee system (1844-1869), (ii) State construction and management (1869-79), (iii) the new guarantee system (1879-1900), (iv) rapid extension of railways and commencement of railway profits (1900-14), (v) breakdown of the railway system during the War (1914-20) and (vi) the Acworth Committee (1920-21) and after.

On the recommendation of the Acworth Committee on Indian Railways, railway policy was overhauled. Provision was made for

larger capital expenditure. Under the policy of management of railways by the State recommended by the Committee, the management of two trunk lines (the G.I.P. and E.I. railways) was transferred to the State. The railway budget was separated from the general budget. Owing to the severe trade depression of recent years, the railways were unable to make any contribution to the general revenues between 1931 and 1937.

There is a great need for further railway development in the country as many areas are still leading an isolated existence.

Road transport.—Lord Dalhousie was responsible for a vigorous road policy as he was also mainly responsible for the railways. A Central Public Works Department and Provincial Public Works Departments were established, and trunk roads were constructed. Four such great roads exist, and also subsidiary roads, the total mileage of metalled roads being 82,284. The mileage of *kachha* roads is 221,433.

The advent of motor transport and its remarkable development in recent years have emphasized the need for more and better roads, especially in rural areas where their deficiency is keenly felt. Railways and roads are largely complementary. A new road policy was adopted (1929-30) on the recommendation of the Road Development Committee. The policy is characterized by a coordination of local road programmes, and grants for this purpose are made by the Central Government to the provinces out of a Road Development Account, to which the proceeds of an additional duty on petrol are credited.

Water transport.—Water transport falls into two divisions: Inland waterways and Marine transport. Northern India is better served by natural waterways like the Indus and Ganges than peninsular India. Railways are a serious rival today to river transport.

In spite of her extensive coastline, a large volume of coasting and oceanic trade, and her reputation as a sea-faring country in the past, the present position of India's shipping and shipbuilding industries is very unsatisfactory. There is urgent necessity of developing an Indian mercantile marine.

Air transport.—In recent years civil aviation has shown striking development all over the world. Although it is still in its infancy in India a certain amount of progress has been made and some of the principal towns are already connected by airways, not to mention the air services between India and the rest of the world, or passing through India.

QUESTIONS

I. TRADE

1. Compare international trade with domestic trade and clearly bring out the distinguishing characteristics of the former.
2. In what respects does the trade between Bombay and Delhi differ from that between Bombay and London?
3. Explain the principle of comparative costs and show how the terms of international exchanges are determined.

4. Show how international trade arises. Would you say that in the last analysis it is a kind of barter?
5. What are the advantages of international trade and its possible disadvantages?
6. Mention the principal divisions of the trade of India.
7. Give a brief review of India's foreign trade.
8. What are the main characteristics of India's foreign trade?
9. Indicate the principal articles of: (i) the import; and (ii) the export trade of India, and show their relative importance.
10. Write brief notes on: (i) the re-export trade of India; (ii) the land-frontier trade; and (iii) commercial intelligence.
11. Explain why India has normally a favourable balance of trade. Indicate the changes in her balance during the recent years of economic depression.
12. Give a short account of: (i) the coasting trade; and (ii) the inland trade of India.
13. Mention the principal trade centres of India.

II. TRANSPORT

14. Discuss the part played by the transport system in the economic development of a country.
15. Give a brief history of railway construction in India.
16. What were the principal recommendations of the Acworth Committee, and how far were they accepted?
17. Examine the economic effects of railways in India and emphasize the need for further development.
18. Give a short history of roads in India and indicate the main features of her existing road system.
19. What is the importance of road development in India? What measures have recently been taken to expedite it?
20. Give an idea of the rail *versus* road controversy.
21. Discuss the present position and the future prospects of waterways in India.
22. What is the present state of marine transport in India?
23. Give a brief sketch of the development of civil aviation in India.
24. Give a brief account of the state of communications in India before the advent of railways.

Chapter XI

NATIONAL INCOME AND ITS DISTRIBUTION

§1. Main problems of distribution of wealth. Distribution of wealth, as we know, means the apportionment of the aggregate of goods and services, among the owners of the four factors of production who have collaborated in the process of their production. The study of distribution involves the consideration of the following three main questions :

- (i) How much is there to be distributed ?
- (ii) Among what factors is the joint product to be divided ?
- (iii) What determines the share of each factor ?

In the following sections these questions are briefly answered.

§2. The National Dividend (income) and its distribution. 'The Labour and the Capital of a country acting on its natural resources produce annually a certain *net* aggregate of commodities, material and immaterial, including services of all kinds. This is the true annual income or revenue of the country or the National Dividend' (Marshall). The national income is thus the heap or pool of goods and services of every kind produced annually in the country. Into this pool, we may imagine, are thrown the contributions of all the productive agents in society. The national income can be measured by the money value of the gross produce of society, from which are to be deducted (i) the value of the raw and half-finished commodities used, and (ii) the replacement fund necessary for repairing and replacing plant and machinery. The need for making this allowance is indicated by the word 'net' in Marshall's statement. The net income due on account of foreign investments must be reckoned in as an addition to the national dividend. The net aggregate amount of the national income or dividend determines

what is available for distribution and sets a limit to the shares received by the various agents of production.

The National Dividend is divided up into the earnings of labour ; interest on capital ; producer's surplus (or rent of land) ; and lastly the profit of business enterprise. 'It constitutes the whole of them, and the whole of it is distributed among them ; the larger it is, the larger, other things being equal, will be the share of each of them.'

The third question, namely, what determines the share of each factor, is the most fundamental and controversial. Marshall's general answer, based on the application of the general theory of value, is as follows:

'It (the national dividend) is distributed among them (i.e. the agents of production), speaking generally, in proportion to the need which people have for their several services, i.e. not the *total* need, but the *marginal* need. By this is meant the need at that point, at which people are indifferent whether they purchase a little more of the services (or fruits of the services) of one agent, or devote their further resources to purchasing the services (or the fruits of the services) of other agents.' Each factor of production thus draws from the national dividend a reward in the measure of its respective marginal efficiency, allowing for the possibility, within certain limits, of substitution of one factor for another.

It is obvious that the shares allotted to these agents of production are not equal. They depend on a series of bargains which the organizer or employer (who takes the initiative and is the most active of all the agents of production) strikes with the other three agents of production.¹ The bargains are freely entered into by the parties concerned and are not forced on them by some outside power like the Government. What determines the terms of these bargains and what determines the profit which the employer himself earns? These are the questions which we have to deal with. In other words, we have

¹ This is based on the assumption of private property, which underlies the whole of our present scheme of distribution of wealth.

to examine the forces and the causes underlying rent, interest, wages and profits.

§3. **National income of India.** Before proceeding to examine the forces and causes underlying the various shares in the national income, namely, rent, wages, interest and profits, we may give here a brief idea of the national income of India.

Various estimates have been made from time to time of the national income of India. The following table sets out the chief among them showing the income per head :

| Estimates by | | | | Relating to year | Income per head |
|--------------------|----|----|----|------------------|----------------------|
| | | | | | RS. A. P. |
| Dadabhai Naoroji | .. | .. | .. | 1870 | 20 0 0 |
| Lord Curzon | .. | .. | .. | 1900 | 30 0 0 |
| Wadia and Joshi | .. | .. | .. | 1913-14 | 44 5 6 |
| Shah and Khambatta | .. | .. | .. | 1921-2 | 67 0 0 ¹ |
| Findlay Shirras | .. | .. | .. | 1922 | 116 0 0 ² |
| Visvesvaraya | .. | .. | .. | 1922-3 | 82 0 0 ³ |

The differences in the estimates are due to a number of causes. First of all they relate to different periods, so that the differences in prices must be taken into account. Thus between 1913-14 and 1921-2 prices had risen by

¹ Exclusive of Rs. 7 per head on account of the home charges payable in England by the Secretary of State for India on account of this country, profits on foreign capital invested in India, freights paid to foreign shipping companies, etc.

² The following figures have been worked out by Findlay Shirras for each of the following ten years in the period 1923-32: Rs. 117 (1923-4), Rs. 125 (1924-5), Rs. 114 (1925-6), Rs. 108 (1926-7), Rs. 108 (1927-8), Rs. 106 (1928-9), Rs. 109 (1929-30), Rs. 84 (1930-31), Rs. 63 (1931-2), and Rs. 58 (1932-3). The very appreciable decline in the national income per head after 1929-30 was due to the effects of the world economic depression on India. *Science of Public Finance*, third edition, p. 251.

³ According to Visvesvaraya, although the average income per head in a normal year may be taken at about Rs. 82, in the recent slump it would be correct to take the average at about Rs. 55 per head.

about 80 per cent, so that Rs. 44-5-6 in 1913-14 would be equivalent to about Rs. 80 in 1921-2. Secondly, the area covered by the estimates is not always precisely the same. Thirdly, methods of calculation are not uniform. We must also allow for the bias—pro-Government or anti-Government—of the inquirer. But even the most optimistic of these estimates serves to emphasize the fact that India is one of the poorest countries in the world. Comparison of India with some of the advanced nations of the world conveys the same dismal lesson. The per capita income in Japan is about Rs. 271; in Germany, Rs. 634; in France, Rs. 636; in the United Kingdom, Rs. 1,092; in Canada, Rs. 1,268; in the United States of America, Rs. 2,053.¹ It should be further remembered that not only is the aggregate of national income small in relation to the size of the population in India, but it is also very unevenly distributed. According to Shah and Khambatta, about a third of the wealth of the country is enjoyed by about 5% of the population, about 35% is absorbed by about one-third of the population; while the remaining 30% or less is distributed among more than 60% of the population. It is an economic maxim that uneven distribution makes for diminution of welfare and aggravation of poverty. This evil, however, is not so glaring in India as in the capitalistic countries of the west, and as between inadequate production and inequitable distribution, the former is by far the more serious drawback of Indian economy.

I. RENT

§4. **Economic rent and contract rent.** In popular parlance the term 'rent' is used to mean a sum paid by one person to another for the lease of land. This contract rent, as it may be called, often includes, besides economic or pure rent, other elements such as interest on capital invested by the landlord in his land and farm buildings, and charges of supervision. Moreover, influences other than competition, which is assumed to be the basis of economic rent, may affect contract rent. Thus rent

¹ Visvesvaraya, *Planned Economy for India*, p. 27.

actually paid may be more than the economic rent, e.g. when there is monopoly in land or when there are no alternative occupations; or it may be less because it is customary or because considerations of a philanthropic nature may influence the landlord in dealing with his tenantry.

5. **The Ricardian theory of rent.** As a preliminary to an analysis of economic rent, it is desirable that we should remind ourselves of the wide sense which we attach in economics to 'land', the income from which we call 'rent'. Land means all those utilities which nature supplies free but in limited quantities. It is important to bear in mind the fact that land is limited in quantity. No matter how much the demand may increase, its supply remains the same. Particularly is this the case in old countries like India where practically all the cultivable land is occupied.

Besides being limited in quantity, land varies in quality. Some lands are more fertile than others. The most fertile lands are naturally the first to be occupied and cultivated. When population increases, however, recourse must be had to inferior lands, or the superior lands must be more intensively cultivated.¹

Now we may proceed to state the theory of rent on the lines of Ricardo. Let us suppose that the land in a given country falls into grades *A*, *B* and *C*; *A* being the most fertile, *B* less fertile, and *C* the least fertile. *A* will be cultivated first, and then when population increases and the demand for food with it, *B* will be brought under cultivation, and when there is a further increase in population, *C* will also come under cultivation. Let us suppose that capital and labour worth Rs. 10,000 is spent on land belonging to grade *A* and that the yield is 100,000 seers of wheat. More wheat is required for a growing population, so that gradually capital and

¹ Fertility of land is relative to time, place and circumstances; and at any given time, taking into account all circumstances, there are certain lands which are regarded as more desirable and certain others as less desirable. This grading of land may, however, change according to changes in circumstances.

labour worth another Rs. 10,000 is employed on land of the *B* grade. This grade being inferior to *A*, the yield is only 80,000 seers. The community grows further in numbers, and requires more than the total of 180,000 seers realized from *A* and *B*, and therefore *C* is taken under cultivation and a further dose of capital, say, another Rs. 10,000-worth, is applied to it. *C* being the worst grade of all three, the yield from it is only 50,000 seers. But according to our hypothesis this additional 50,000 seers is urgently required. Now all this wheat being of the same quality must sell at the same price. Possessors of *A* would demand at least Re. 1 for 10 seers, though they would welcome any higher price than this. Similarly, owners of *B* would be prepared to accept Re. 1 for 8 seers, though, of course, they would also welcome any higher price that they could get. The minimum price which would suit growers on *C* would be Re. 1 for 5 seers. It is obvious that out of these three possible prices the only one that will suit all the growers is the last. This price is necessary if *C* is to remain continuously under cultivation. (And *C* must remain under cultivation; otherwise the demand of the community for food is not satisfied.) At the price of Re. 1 for 5 seers, all the expenses of production on land *C* will be just covered.¹ The owners would get the full value at current rates of the different kinds of effort employed (including wages of the ordinary labour and of management plus interest on the capital) aggregating to Rs. 10,000. At the uniform price of Re. 1 for 5 seers *B* will realize Rs. 16,000, that is, Rs. 6,000 more than *C*. *A* will realize Rs. 20,000, that is, Rs. 10,000 more than *C*. In this example, *C* is the worst land in use. It is called *marginal land* or *land of marginal fertility*. Lands *B* and *A* are above the margin and are called *super-marginal lands*. *C* yields just enough to cover

¹ The student must not make the common mistake of supposing that it would not be profitable to cultivate *C*, if the price is Re. 1 for 5 seers. It would be profitable in the sense that labour, capital and organization would all get their normal remuneration out of this price. But no *unearned* surplus over and above this would be available, as in the case of the superior grades of land.

all expenses and no surplus or rent. It is also known as the *no-rent* land.

A surplus or rent is obtained on *B* and *A*. The rent on *B* may be expressed either as 30,000 seers of wheat (80,000 minus 50,000=30,000), or as Rs. 6,000 (that is, the value of 30,000 seers at the market rate). The rent on *A* is 50,000 seers of wheat (100,000 minus 50,000=50,000), or Rs. 10,000 (that is, the market value of this extra 50,000 seers). Rent on the superior lands is thus measured from the marginal or no-rent land upwards. It expresses the *differential*

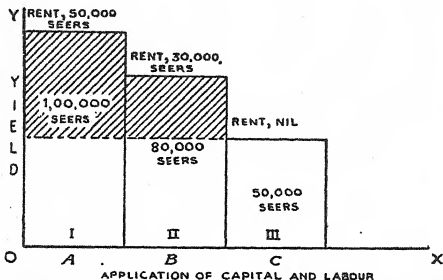


FIG. 6.—DIAGRAM ILLUSTRATING HOW RENT ARISES FROM THE OPERATION OF THE LAW OF DIMINISHING RETURNS

advantage of the superior lands over the marginal land. Rent is also an *unearned surplus* or an *unearned increment*, as it is sometimes called. It does not represent the reward for any special kind of effort or capacity. The lands *A*, *B*, *C* are assumed to be cultivated in the same manner and with equal efficiency. *A* and *B*, however, being superior in fertility yield a surplus over *C*.¹ The same truth is

¹ Essentially the same results would be realized if the better lands were intensively cultivated. The earlier applications of capital and labour would yield a surplus or rent, but not the marginal application.

expressed by saying that *rent arises from the operation of the Law of Diminishing Returns*.

The above reasoning is illustrated in Fig. 6.

The rectangles I, II, and III represent the yield respectively to the first, second and third application of capital and labour worth Rs. 10,000, either to different lands *A*, *B*, *C*, in decreasing order of fertility, or intensively to the same land *A*, each succeeding dose of capital and labour yielding a smaller return than the previous one. The shaded portions of the rectangles I and II represent the rent or surplus produce on lands *A* and *B*, or on the first two doses applied to land *A*. Land *C*, or the third dose applied to land *A*, does not yield any rent.

From this it is clear that rent does not determine price but is the result of price. The price itself is determined by the cost of production on the marginal land, which is no-rent land. As Ricardo says : 'Corn is not high because rent is paid but rent is paid because corn is high.'

§6. **Other applications of the theory of rent.** Having explained the theory of rent with reference to agricultural land, it remains briefly to indicate its applications to other natural resources. It is a matter of common knowledge that business premises on central sites in an industrial and commercial city command high rents, which diminish as the premises are situated farther and farther away from the centre. Here the nearness to the central locality corresponds to fertility, because nearness confers many advantages, such as ability to attract the largest number of customers. The buildings further removed from the centre are like the less fertile lands. As the demand for business premises increases, less and less favourably situated buildings are occupied ; or alternatively more and more stories may be built on the same spot. But this means greater expense and smaller sales, as people would naturally buy on the ground floor by preference and comparatively few would take the trouble of visiting shops on the upper stories. Building more and more stories is thus analogous to working the same land more and more intensively.

§7. **Rent of ability.** An interesting parallel to economic rent emerges when we compare the difference in

earnings as between one man and another, whether in business or in any of the professions, owing to difference in inborn ability. In so far as the difference in ability is due to nature, the larger earnings of the man with superior brains are to be compared with the higher rents of the more fertile lands and are sometimes referred to as *rent of ability*. (See also §18 below.)

II. WAGES

§8. **Definition and scope of wages.** Wages are the remuneration of labour as a factor of production, or the share which labour is entitled to receive from the national dividend. Commonly by 'wages' we understand the remuneration of hired labour. Strictly speaking, however, wages must be regarded as the remuneration to labour whether hired or not. Even independent workers like peasant proprietors and handicraftsmen receive wages. These form part of their total returns, although mixed with what they receive as interest on capital and as profits for the labour of organization, etc. On the same reasoning, the earnings of professional men like barristers and doctors partly consist of wages.

RELATIVE WAGES

§9. **Nominal and real wages.** Wages are not the same in different occupations. A High Court Judge, for example, receives very much higher wages than a clerk or a factory worker.

We shall in this connexion consider the distinction between nominal and real wages. If we merely consider the reward of labour that is received in the form of money, we are thinking of nominal wages. Real wages, on the other hand, refer to the income of the worker in terms of real benefit. (i) To arrive at real wages we must first of all consider the *purchasing power of money*. It is easy to see that the real benefit to the worker depends not on the money he receives but on the amount of goods and services he can purchase with it. A rise or fall in the price level, especially as regards the goods consumed by

the working classes, is clearly significant from the point of view of the workers' welfare. To ascertain real wages we must compare the cost of living with nominal wages. During the War, for example, the cost of living increased owing to a sharp rise in prices, and although nominal wages also increased, real wages for a time declined as the rise in prices was greater than the rise in the nominal wages. Today, on the other hand, the fall in the price level and the cost of living being greater than in the nominal wages, real wages of labour have in general increased (though the volume of employment has diminished owing to the depression).

(ii) Secondly, we must make allowance for any *other benefits* received by the worker, such as free boarding and lodging (for example, in the case of domestic servants) or the right of grazing in the case of farm labourers, or the pensions received by public officials.

Even after making all these allowances we shall find that the wages in the various occupations differ. The following are some of the factors which account for the variations.

(iii) *Trade expenses*.—Trade expenses are high in some occupations. In others there may be no trade expenses or they may be comparatively moderate. The carpenter working on his own account must spend money on tools, the barrister must maintain an establishment. The factory worker, on the other hand, has generally no such expenses.

(iv) *Expenses of preparation*.—Occupations which require a long and expensive training (e.g. medicine) will get comparatively higher rewards, as without them the necessary expense and trouble would not be incurred.

(v) *Uncertainty of success*.—A higher speculative reward may really be equivalent to a smaller but certain reward. Some people are attracted by the possibility of very high earnings. Others are attracted by a modest but certain income.

(vi) *Irregularity of employment*.—The employment of labour is seasonal in some trades (agriculture, building) and irregular in others (dockyards, fishing). In such cases

the high wages during the period of activity are due to the fact that there is no work for part of the year.

(vii) *Opportunities of supplementary earnings.*—These must also be considered, especially if we regard the family as the wage-earning unit. For example, in agriculture, there is scope for employment of women and children as well as adult males and, therefore, the wages of the latter are smaller than those, for example, of dockyard workers who have no comparable opportunities for adding to the family income.

(viii) *Strain of work.*—The higher remuneration in some trades (e.g. metal casting and metal grinding) is due to the specially exhausting character of the work.

(ix) *Incidental advantages and disadvantages.*—At least a partial explanation of differences in wages is afforded by the consideration that some occupations are naturally healthy and others must necessarily have a prejudicial effect on the physique of the workers. The miner working underground is naturally at a disadvantage as compared to the farm labourer working in the open air. Again, sometimes it is a question of social status. The so-called soft-handed occupations generally enjoy a higher status and attract a large number of people even when the wages in the manual occupations may be higher.

Another important reason for the disparity of wages as between one occupation and another is the lack of free choice of occupation and of vertical mobility of labour.

GENERAL WAGES

§10. *The subsistence theory of wages.* We will now consider the causes which affect the general rate of wages or causes which determine the share of labour as a factor of production.

The subsistence theory, also called the Iron Law of Wages, first propounded by the Physiocrats, states that, just as the normal value of a commodity under free competition is determined by its cost of production, so the value of the commodity, labour, is determined by its cost of production, i.e. the minimum subsistence expenses

required for the support of the labourer and that of his family in order to ensure a continuous supply of labour. If wages exceeded this minimum, population would increase and with it the supply of labour, until wages were again at bare subsistence level. If, on the other hand, wages fell below the level there would be a reduction in population and therefore in the supply of labour, until wages were again raised to the subsistence limit. Thus this theory came to be bound up with the Malthusian doctrine of over-population. Lassalle used the subsistence theory in support of the socialistic contention that under capitalism wages could not go higher than the subsistence level, the employers appropriating the whole of the surplus product created by labour. He gave a new title to the theory, namely, the Iron or Brazen Law of Wages, because of the supposed absolute rigidity of wages. This theory is no longer accepted because we now know by experience that a rise in wages is not necessarily cancelled by an increase in population. Some of it may be absorbed by a higher standard of life being established which will powerfully influence the rate of wages in future. Again, it is quite possible that by Trade Union action labourers may at least temporarily obtain wages higher than the subsistence level.

On the other hand, when starvation is the only alternative, wages *below* subsistence level may be accepted by the workers. Adam Smith, who assents to the subsistence theory, himself asserts that employers will give no higher wages than their *present interests* compel them to. During the last hundred years or so, real wages have undoubtedly increased in the progressive countries of the west and have placed not only necessities for efficiency but also not a few comforts and even luxuries at the command of the working classes. In the modern statement of the wages problem, the subsistence theory is transformed into the *standard of comfort theory*, wages being regarded as determined by the standard of living of the particular class to which a labourer belongs. This is, however, an abandonment of the subsistence theory rather than an amendment of it. Even in this form the theory is not

free from difficulties. The conception of a living wage is very elastic and varies considerably even as regards workers in similar occupations. Moreover, the labourer cannot always stick to his standard of life when he has to choose between a lower standard and starvation. Further, if we regarded the standard of life as the cause and wages as the effect, it would follow that the labourer has only to adopt a high standard of living to secure high wages. Obviously this is not possible unless his efficiency is so increased as to admit of the high wages. In short, the fundamental defect of the theory is that it restricts itself to the supply side of the wages problem, ignoring altogether the demand side. The cost price of labour is a factor only indirectly determining the value of labour, the more positive factor in this case—as in that of the general theory of value—being the demand factor.

The subsistence theory, however, does contain an element of truth. It rightly points out that wages cannot for long fall below a certain minimum limit if the supply of labour is to be maintained. Further, conditions may sometimes arise under which wages are largely determined by mere level of subsistence, as in India at present.¹

§11. The marginal productivity theory of wages. The earlier theories already considered were particularly defective

¹ Another theory which held the field for quite a long time was the *Wages Fund* theory, which applies the demand and supply theory of value to wages. It is an improvement over the subsistence theory in so far as it allows for the factor of demand which, as we saw, was neglected by the earlier theory. According to this theory, at any given time a certain wages fund is available, i.e. a determinate amount of capital unconditionally destined for the payment of labour. There is similarly a determinate number of labourers who must work, whatever the wages. The wages fund divided by the number of workers gives us the level of wages. The wages fund thus constitutes the demand for labour, and the working population the supply of labour, and the former is distributed among the latter solely under the rule of competition. A natural corollary from this theory is that wages can rise only under two conditions: either the labourers must restrict their numbers, or the wages fund must increase. The latter is not controlled by the workers, and the lot of the workers therefore depends on their numbers. This theory has now been discarded, its most serious defect being that it ignored one vital element in the wages problem, the productivity of labour.

in that they did not consider the influence of efficiency or productivity of labour in determining wages.

The *marginal productivity theory* is much more satisfactory in this respect. A more optimistic turn was given to the wages theories, as it was shown that labour's reward depended upon its efficiency and varied in proportion to it. The central idea of the marginal productivity theory of wages is that wages are determined by the productivity of labour. The theory may be stated thus:

In every business concern there is a point beyond which it will not pay the entrepreneur to engage more labourers. At this point there is a certain product ascribable to labour. Wages tend to be equal to this marginal product, i.e. the product of the least productive worker. The last labourer employed produces just enough to cover his cost to the employer. All the labourers being assumed to be of the same quality, they will all receive the same wages, i.e. the wage representing the product of the marginal labourer. By the law of substitution, employers will take on workmen so long as wages can be paid from the price of their joint product and still leave normal profits and interest on capital. Competition will ensure that not less than this marginal product will be paid to labour, for then capital would enjoy more than marginal gains and would demand more and more labour to reap further gains. This competition for labour would raise wages until no special gain was to be made by its further employment. The marginal productivity theory explains the phenomenon of wages on the same lines as the marginal utility theory explains the phenomenon of value in general, and needs to be supplemented in the same manner, i.e. by bringing the supply side into equal prominence with the demand side. Wages, that is to say, must not only be the monetary equivalent of the marginal productivity of labour but must also be equal to the cost of production of labour as determined by the standard of living. We assume that the labourer is prepared to take whatever action may be necessary to maintain his standard of living, so that enough can be earned for making a certain standard of life possible. If necessary, he will refuse to marry and

bring up a family. The supply of labour will in this way diminish and wages will rise until they cover the cost of production (as determined by the standard of living), and at the same time express the productivity of labour at the margin.

In actual experience wages may differ from their level as determined by strict theory, because the assumptions on which the theory rests are incompletely realized in practice. We have to reckon with any number of disturbing influences which we conveniently bring under the term of 'economic friction'. These include such things as the imperfect mobility of capital and labour, the influence of custom and law and of Trade Union action, and so on. The theory, however, must not for that reason be dismissed as useless. It is valuable as it gives us a norm towards which wages do in fact tend to approximate.

III. INTEREST

§12. What is interest? We have seen how capital is one of the essential factors of production. The share allotted to it as its remuneration is called interest, which is generally stated as a percentage per annum on the amount lent. Interest may be described as the price for the use of capital. The higher the rate of interest, the greater the supply of capital and the lower the demand for it; the lower the rate of interest, the smaller the supply and the greater the demand.

§13. How interest is determined. Interest is determined by the interaction of supply and demand in the usual manner. We have already examined the forces governing the supply of capital. The total demand for capital is made up of (i) demand for productive purposes (e.g. purchase of a plough or bullocks for agricultural purposes), and (ii) demand for unproductive purposes (e.g. for meeting the expenses of a funeral, or when the State raises loans for carrying on a war).

But in normal times, in modern advanced countries, capital is mostly borrowed for productive employment

and the productivity of capital is thus one of the principal determinants of its value, i.e. of the rate of interest.

Demand side.—Capital earns interest because more wealth can be produced with its aid than without. Borrowers of capital are prepared to pay interest because they realize its utility to themselves. The amount of capital available at any given time is limited, and competition among borrowers for this limited amount compels them to pay interest. This is the demand side of the matter.

Supply side.—The saving of capital, as already shown,¹ involves the effort of postponement or waiting. During the period that capital is employed in further production of wealth, the capitalist denies himself the use of so much wealth in immediate consumption. Unless he receives some compensation (as interest), he would not undergo whatever sacrifice is involved in this forbearance. This is the supply side of the matter.

§14. *Marginal theory of value and interest.* Looking upon interest as a part of the problem of value, it can be explained in terms of the marginal theory. Among the whole body of investors or lenders, there are some who are more willing to lend or invest and therefore contented with a lower rate of interest; and there are others who are less willing and who therefore require the inducement of a higher rate of interest. The aggregate amount of capital demanded cannot be made up without the cooperation of the less willing as well as the more willing. Under these conditions, so far as the supply side is concerned, the marginal investor's rate will be the market rate of interest.

Similarly, among the borrowers there are some who are more anxious to borrow and therefore prepared to pay a higher rate of interest, and there are others who are not quite so anxious and who will therefore offer a lower rate of interest. Under these conditions, so far as the demand side is concerned, the market rate of interest will be fixed by the marginal borrower.

¹ See ch. vi, §6.

The rate of interest will thus represent the coincidence of (i) marginal demand (or marginal utility, or marginal productivity) with (ii) marginal supply (or marginal cost of production).

§15. **Gross interest and net interest.** We have already learnt that in the same market at the same time there cannot be more than one price for the same commodity. So that where capital can be easily shifted from one use to another, it ought to yield the same interest in every use. If in one case it yields, say, 6% and in another 10%, its supply will decrease in the first use and increase in the second. The rate will go up in the first and go down in the second, and eventually a uniform rate of, say, 7% will be established in both the uses. In actual experience, however, we find that the yields in different kinds of investment vary. This we explain by saying that the *net interest*, i.e. the return for the use of capital as such, is the same in every case—the variation being due to such elements as more or less risk, greater or less inconvenience, and more or less labour of management. If by investment in Cash Certificates we get 2% and on bonds issued by a municipality we get 6%, this is because the security in the first case is greater than in the second. Assuming that the average investor regards investment in Cash Certificates as perfectly safe, the 2% yield on them will stand out as net interest. The 6% derived from the municipal loan would be accounted for thus:

| | | |
|----------|----|--------------------|
| | 2% | net interest |
| | 4% | insurance for risk |
| Total .. | 6% | |

The *sahukar* or the pawnbroker lending small amounts to numerous clients charges comparatively heavy rates. An important reason for this is the natural desire of the lender to recompense himself for the extra risk and the extra worry involved in realizing petty amounts from a large number of impecunious and improvident borrowers.

IV. PROFITS

§16. **Analysis of gross profit.** The remuneration to the entrepreneur (organizer, enterpriser, or venturer) who

supplies the fourth factor in production, namely organization, is called profits. The work of organization consists, as we have already said, in (i) the efficient grouping of the other three factors of production, land, labour and capital, and (ii) taking the risks associated with business enterprise.

In ordinary language, by the term 'profits' we simply mean in a loose manner the excess of money return over money costs (gross profit). And the money cost may sometimes not include all the other elements that must strictly speaking be allowed for in calculating the amount which remains as profits. Those who have organized a business and are running all the risks in connexion with it may have themselves contributed some of the necessary (i) 'land' (natural resources); (ii) capital; and (iii) labour (labour of directing, inspecting, management—work for doing which they might have had to pay a salary to an outsider). From his gross receipts the entrepreneur must deduct the returns attributable to (i), (ii) and (iii) because these are not profits proper, but rent, interest and wages of management respectively.

Other items that must be deducted from gross profits are depreciation, maintenance and insurance (against fire, burglary, etc.).

§17. Net or pure profit. What remains after all these deductions are made can alone be called 'profits' (net or pure profit), if we wish to use the term scientifically and accurately. Profits proper are, as already stated at the very outset, a return for the work (whoever does it) of (i) directing and organizing the business, and (ii) taking the risk of loss. Some risk is of course always inherent in modern business, because the goods produced may after all not be wanted by the public or the prices may turn out to be lower than expected and so on. The entrepreneur can insure his business against some of the risks, and in this case, the premia he pays to the insurance companies will figure as part of the cost he has undergone. But there are always other risks which cannot possibly be insured against. The position of the employer is different from that of the owners of the other

factors which he hires and employs. Whether he gains or loses, he has to pay the rent and interest and wages for the use of these factors. He has to pay for the services of these factors before he has marketed the goods and knows whether he has made a profit or a loss. *He takes for himself whatever surplus remains after the payments to the other three factors have been made.* Hence he is sometimes described as the residuary legatee. One of the principal points which distinguishes profits from payments to land, labour and capital, is that, *whereas rent, wages and interest are comparatively fixed and certain, profits are fluctuating, uncertain and speculative.*

§18. **Profits and cost of production.** Do profits enter into cost of production and therefore determine the price of goods? The answer to this is that *normal profits or profits earned by the representative (or average) firm* in a business do enter into the cost of production. Average ability of management and other average advantages are here assumed. Where the ability or other advantages are exceptional, a surplus over marginal profits will be enjoyed. This surplus due to superior capacity, superior luck or superior opportunity is of the nature of rent. We may say that the position of the entrepreneur or firm which is below the average has no significance in fixing the price because such businesses will sooner or later be pushed out in competition with their better-placed rivals.

SUMMARY

The *problem of distribution* requires an answer to the following three questions: (i) How much is there to be distributed? (ii) Among what factors is it distributed? (iii) On what principles is it distributed?

The answer to (i) is that the national income or national dividend, which is the aggregate of goods and services produced in a year *minus* the cost of replacement and renewal of capital, is what is available for distribution.

The answer to (ii) is: Land (rent), labour (wages), capital (interest) and organization (profits).

The answer to (iii) can be given on the lines of the general theory of value, by saying that each factor tends to get a share representing its marginal efficiency.

Distribution depends on a series of bargains which those who organize industry or business enter into with the suppliers of land, labour and capital respectively.

The extreme poverty of India is brought out clearly by the various estimates of the *national income* made from time to time, as also by a comparison with some of the advanced nations of the world. Besides low production, India also suffers from uneven distribution of wealth, although this inequality is not so pointed as in the western countries.

I. RENT

Economic rent should be distinguished from contract rent actually paid for the lease of land by tenant to landlord. The latter often includes other elements such as interest on capital, and may be influenced by monopoly, custom and philanthropy.

The theory of (*economic*) rent is best illustrated with reference to land. At any given time lands are graded into more paying and less paying. We first employ the better lands, and when more of the product is required, we obtain it in one of two ways: (i) either by working the same land more intensively, or (ii) by having recourse to inferior lands. In either case the return for a given outlay of capital and labour goes on decreasing; or in other words the cost of production goes on increasing. The price obtained must be such as to cover the highest cost. Otherwise it would not be incurred. It must cover the cost of cultivation at the margin (extensive or intensive). When the price obtained is higher than is needed to cover the cost in connexion with the employment of capital and labour, a surplus which is called rent is left above the margin.

The least profitable land in use is called the *marginal or no-rent land*. Rent is said to be something differential because it measures the difference between income from the marginal land and that from the lands above the margin. *Being itself the result of price*, rent cannot be one of the component elements of price.

The theory of rent can be shown to apply to *building-sites*, etc. As lands differ from one another in point of fertility so men differ in point of ability. The larger earnings of the more capable man as compared with the earnings of the less capable man contain an element of rent which may be called *rent of ability*.

II. WAGES

Wages are the remuneration of labour, usually of hired labour. The term 'wages' in Economics has a wider scope than in popular usage, and includes salaries as well as part of a composite income received by independent workers such as the professional classes, peasant proprietors and artisans.

The theory of wages has two aspects: Relative wages, and General wages.

Relative wages.—Wages are different in different occupations partly because of the causes underlying the distinction between *nominal and real wages* and partly because choice of occupation is not free. *Nominal wages* mean the money wages received by the labourer, while *real wages* refer to the real income or real worth of his labour in terms of necessities, comforts and luxuries. Real wages depend upon the following factors: the purchasing power of money, existence of other forms of payment besides money payment, differences as regards expenses of previous preparation, degree of uncertainty of success, regularity or irregularity of employment, opportunities of supplementary earnings, strain and stress of work, and incidental advantages or disadvantages (e.g. higher or lower social status, etc.).

General wages.—The main theories dealt with are (i) the Subsistence Theory; and (ii) the Marginal Productivity Theory.

(i) *The subsistence theory* (also called the Iron Law of Wages).—Wages according to this theory are determined by the cost of subsistence of the labourer and his family and cannot in the long run either fall below this minimum or exceed it.

This theory neglects the possibility of a check to population in a progressive society in order to maintain a higher standard of life. It is not supported by actual facts, which show an improvement in the standard of life of the worker in the west. A modern refined version of the theory is the *standard of comfort theory* of wages. But in the new as well as in the old form, the theory is open to the objection that it neglects altogether the demand side of the wages problem.

(ii) *The marginal productivity theory.*—This theory supplies a serious deficiency in the earlier theories and duly stresses the influence of *productivity* of labour. The best known among the various productivity theories is the one which applies the concept of marginal utility to labour. If this theory is amended so as to bring the supply factor of labour into sufficient prominence it may be allowed to pass as the most acceptable theory. We must, however, remember that wages as actually paid are determined by a multitude of factors, such as Trade Union action, public opinion and custom.

III. INTEREST

Interest is the remuneration or the price for the services of capital. The supply of capital involves the effort of abstinence or waiting which would not be forthcoming without the inducement of interest. The demand for capital is based upon its uses in production (some of the demand is also for unproductive purposes). The rate of interest represents the coincidence of marginal demand for, and marginal supply of, capital. Net interest tends to be uniform in all uses of capital. Gross interest is made up of net interest plus an addition which may be necessary to cover extra risk, labour or inconvenience.

IV. PROFITS

Profit is the remuneration to the organizer, being the reward for his work of bringing together and co-ordinating the other three factors of production and assuming risks which are inseparable from business.

Profits as ordinarily understood are *gross profits*, and contain, besides pure or *net profit*, other elements such as interest on capital, rent on land and the wages of labour (superintendence) supplied by the organizer himself. Allowance must also be made for depreciation, maintenance and insurance.

The entrepreneur may be regarded as a 'residuary legatee' entitled to the surplus, if any, left after all the other shares (wages, interest and rent) have been paid off. Profits, therefore, unlike the other shares, are necessarily fluctuating and uncertain.

Profit made by the average or representative firm may be called *normal profit*. This enters into the cost of production because production would not be continuous unless the price covered normal profit as well as other costs. Extra profits (i.e. over and above normal profit) made by the superior firms, conducted by men of exceptional abilities, are, however, of the nature of rent (rent of ability) and do not enter into costs of production.

QUESTIONS

1. (i) State in general terms the problem of distribution. Explain in this connexion the concept of national dividend. (ii) Give some idea of the national dividend of India.

I. RENT

2. Explain the distinction between contract rent and economic rent. Give illustrations.
3. Explain as clearly as you can the Ricardian theory of rent.
4. Show by means of a diagram how rent arises and is determined. Indicate its relation to price.
5. Indicate the application of the theory of rent to urban sites.

II. WAGES

6. Explain fully the difference between nominal and real wages.
7. Why do wages differ from occupation to occupation?
8. Discuss the subsistence theory of wages. Is it the same as the Iron or Brazen Law of Wages?
9. In what respects do you consider the marginal productivity theory of wages more satisfactory than the earlier theories?

III. INTEREST

10. What is the difference between gross and net interest? Show how the latter tends to equality.

11. Account for the fact that while the Government of India is able to borrow at present (1938) at $2\frac{3}{4}$ per cent, and the Bank Rate is 3 per cent, the peasant in the rural areas has to pay 12 to 18 per cent and even higher rates of interest.
12. Explain how interest is determined.

IV. PROFITS

13. What deductions would you make from gross profits, in order to arrive at net profits?
14. Consider whether profits form part of the cost of production.
15. Show how far net profits are of the nature of rent.

Chapter XII

WELFARE WORK AND LABOUR LEGISLATION¹

I. WELFARE WORK

§1. *Welfare work.* We have already shown that the Industrial Revolution and the factory system created new conditions of life and labour, especially in towns, and in many ways placed the worker in a position of disadvantage.² Various attempts have been made to improve the conditions of employment and promote the well-being of industrial workers. These may be considered under the two main heads of Welfare Work and Labour Legislation, although they are closely interrelated.

Welfare work has been variously defined. One definition confines it to voluntary efforts on the part of the employers to provide the best conditions of employment in their own factories. A definition more generally accepted includes within the scope of welfare work 'all efforts which have for their object the improvement of the health, safety and general well-being and the industrial efficiency of the worker'.

These efforts may be made by the employers of labour, or the State, or the employees themselves acting through their associations called Trade Unions, or by social agencies like the Social Service Leagues in Bombay, Madras and Bengal, the Seva Sadan Society, Infant Welfare Associations, missionary societies, the Y.M.C.A., etc. From one point of view these activities may be regarded as humanitarian, aiming at the welfare of the industrial population. From the narrow and purely utilitarian point of view, so-called welfare work may be regarded as 'efficiency work' having

¹ This chapter is intended to meet the requirements of the syllabus in Economics for the First Year Course in Commerce of the University of Bombay.

² See ch. ii.

a directly favourable reaction on the physical contentment and efficiency of the operatives. Welfare work may also be considered as a means of developing a sense of responsibility and dignity amongst an illiterate class of workers (as in India) and making them good citizens.

Welfare work, especially in regard to the proper utilization of leisure time, has been neglected in the past by the employers of labour, but as a result of growing industrial unrest, it is now receiving greater attention. The increasing interest taken by modern States in general welfare, the growth of a vigorous Trade Union movement among the workers, and the progress made by social agencies have contributed to the same result. This tendency is in evidence in India also. Enlightened employers of labour like Tata Sons Ltd., municipalities like the Bombay Corporation, Port Trusts and public utility services, especially railways, are taking steps to promote the welfare of their employees. The advent of the Congress Ministries in several provinces in India has created a new interest in the problems of welfare work.

§2. **Items of welfare work.** (i) *Education*—The value of educating children and adult operatives in day and night schools, and the importance of provision of reading-rooms and libraries for their benefit, can hardly be exaggerated. The illiteracy of the Indian worker lowers his standard of efficiency. (ii) *Medical aid*—The provision of facilities for medical attendance both in the factories and in working-class quarters is a matter of vital importance and has a great bearing on the health, happiness and efficiency of the workers. Adequate provision of lady doctors is also necessary to attend to the requirements of the women workers. (iii) *Maternity benefits*—In the interest of women workers and their children, western countries have introduced maternity benefits and prohibition of employment of women for some period before and after child-birth. The fact that women workers in India are also domestic drudges makes similar legislation here all the more important. Maternity Benefits Acts are now in operation in some provinces (e.g. Bombay and the Central Provinces). (iv) *Recreation*—The value of recrea-

tion in the humdrum life of the average industrial worker hardly needs to be specially stressed. Anything should be welcome that adds a little colour to his life. It is also important to induce the worker to utilize his spare time so that he is kept away from the liquor-shop and the bucket-shop. Recreation implies provision for outdoor sports, indoor games, entertainments such as cinema shows, lantern lectures, concerts and dramatic performances, wrestling-matches, excursions, etc. (v) *Housing*—One of the biggest problems in industrial centres is connected with the housing of labour. Most of the industrial towns have their slums where there is terrible overcrowding and congestion and where filthy and insanitary surroundings prevail, as in the case of the single-room *chawls* in Bombay. Here the majority of the workmen are not so much housed as warehoused. It has been well said that 'good houses mean the possibility of home life, happiness, and health; bad houses spell squalor, drink, disease, immorality, crime, and in the end demand hospitals, prisons and asylums'. Insufficient and bad housing is also one of the factors responsible for industrial unrest and low efficiency of workers. The Government, Improvement Trusts, municipalities and individual employers have made some efforts to remedy this serious defect in industrial towns in India. But much more will have to be done before we can be said to be anywhere near a satisfactory solution of the problem. (vi) *Other items*—Other items of welfare work include Co-operative Societies for industrial workers, cheap grain and cloth shops for their benefit, and the provision of tea shops, canteens and creches in factories.

II. LABOUR LEGISLATION

§3. *Need for labour legislation.* The various evils of modern industrialism and the factory system—long hours of work, particularly for children and women, insanitary and otherwise unsatisfactory conditions of work in the factories, absence of protection against dangerous trades and of compensation for injuries received during the

course of employment, the truck system (paying wages in kind)—first appeared in England in the wake of the Industrial Revolution. They were for a long time left unremedied, because in the first place there was widespread public ignorance of their existence. Secondly, even when they came to light, Parliament was reluctant to intervene owing to the predominance of the *laissez-faire* philosophy so fervently preached by the classical economists. The capitalists and manufacturers were naturally averse to any regulation, and stood out for full freedom of enterprise. Gradually, however, the public conscience was aroused in the matter and it was realized that a policy of *laissez-faire* was unsuitable when applied to children and women and in general to the individual factory-worker or wage-earner who, left to himself, was far too weak to protect himself. Philanthropists, social reformers and socialists all joined in a strong and persistent agitation asking for State intervention, which was also favoured by the growing Trade Union movement. The rise of the Labour Parties, the awakening created by the War and the establishment after the War of the International Labour Organization (1919) as a branch of the League of Nations have all helped the cause of labour legislation. In India also these forces have been felt in recent times, and labour legislation has made considerable headway. Modern labour legislation covers a wide range of subjects, some of which are reviewed below.

§4. Factory Acts. Labour legislation in England began with Factory Acts, which regulated the employment of children and women by imposing restrictions on the age of employment of children and on hours of work of both children and women. Later on the employment of women underground in mines, and during the night, was prohibited. Certain precautions for the safety of the operatives during work, such as the fencing of machinery, etc., were also prescribed, and factory inspectors were appointed to enforce the provisions of these Acts. For a long time no attempt was made to limit the hours of work of adult males, as it was thought that they could very well look

after themselves, especially as collective bargaining was rapidly replacing individual bargaining. The limitation of hours of work of children and women, however, indirectly led to that of the hours of work of men, because in many trades where children and women were employed their help was essential to men, and also because of the influence of example. Modern Factory Acts¹ contain elaborate provisions about hours of work, holidays, rest pauses, shift systems, sanitary arrangements and fencing of machinery; and they have undoubtedly succeeded in greatly improving the inhuman conditions that prevailed in the early days of the factory system in England and other countries which came under the influence of the Industrial Revolution. The successive shortening of the working day has not justified the fears of the employers, who apprehended a reduction in the output. On the other hand, there has been gain in efficiency. The working-class ideal today is an eight-hour day, which has been already realized partially in Great Britain. If introduced gradually there is much to be said in its favour from the point of view of both employer and worker. Anyhow, the demand of the worker for reasonable and 'cultured' leisure is becoming irresistible.

§5. Workmen's Compensation Acts. The second important direction in which labour legislation has progressed is that of compensation to workmen for injuries received in the course of employment. The modern factory and machine system of production is liable to produce frequent mishaps and accidents. In England the Employers' Liability Act of 1880 and the Workmen's Compensation Act of 1897 made provision for the payment of a scale of compensation to workmen or their heirs in case of fatal injuries. In India the Workmen's Compensation Act was passed in 1923 and has subsequently been improved by several amending Acts. The risk of loss

¹ The Indian Factories Act (1934) prescribes a daily as well as a weekly limit to the hours of work in factories—the daily limit being 10 hours and the weekly limit 54 hours in all perennial factories. Children are not allowed to work for more than 5 hours a day.

to the employers has been largely covered by insurance, the employers paying premia to get their men insured against accidents. This legislation has made the factory owners more careful about defective machinery and about securing prompt medical treatment for injured operatives. It has also helped to make the labour force more stable and more contented.

§6. **Sickness and unemployment insurance, old age pensions and maternity benefits.** The third main item of labour legislation relates to provision against other hardships. A workman may fall sick and in consequence lose his wages or even his job, or he may be periodically thrown out of employment or become unfit for work through old age. Women workers also need to be released from work some time before and after child-birth. England and Germany have adopted comprehensive schemes of national insurance, which have brought about a substantial improvement in the economic and social status of the worker. The National Health Insurance Act of 1911 in Great Britain, administered by the Ministry of Labour through Employment Exchanges, provides for the compulsory insurance of the worker against sickness and unemployment on a contributory basis, the employer, the employee and the State all sharing the burden thus imposed. The Act was of an experimental character so far as unemployment insurance was concerned and its scope was extended in 1916 and 1920. The Old Age Pensions Acts of 1908 and 1911 provided for the grant of a pension by the State through the Ministry of Health to all persons above seventy, provided their means were below a certain small minimum. The Congress Ministry of Bombay has recently (1937) accepted the principle of social insurance and intends making a suitable provision against sickness. In the interest of women workers, most western countries have introduced maternity benefits and prohibited the employment of women for some period before and after child-birth.

§7. **Legal minimum wage, Truck Acts, etc.** Lastly, in some countries special legislation has been passed to regulate wages in certain selected industries. For example,

the Trade Boards Act of 1909 in Great Britain provided for the fixing of minimum rates of wages in certain 'sweated' trades (such as lace-finishing and ready-made clothing) by Trade Boards consisting of an equal number of representatives of employers and employees and some additional independent appointed members. The scope of the Act was extended in 1913 and again in 1918. The Coal Mines Minimum Wage Act of 1912 applied the same principle to wages of miners under certain circumstances. In this connexion, reference may be made to the draft convention on the subject of a statutory minimum wage adopted by the International Labour Conference in 1928. It contemplates the creation of a wage-fixing machinery in the case of trades or parts of trades (and especially home-working trades) in which no arrangement exists for the effective regulation of wages by collective agreement or otherwise, and wages are exceptionally low. It may be added that the wage-fixing Trade Boards in Great Britain are set up by the Ministry of Labour after a preliminary investigation. In those trades where powerful Trade Unions exist they can very well take upon themselves the work of Trade Boards. In certain countries like New Zealand, Australia, and some States in the U.S.A. a general national minimum wage has been established by legislation. It is obvious that it is by no means easy to fix a national minimum wage even for one country, which will neither be too low to serve its purpose, nor so high as to constitute a serious burden on industries, and which, while suiting all industries alike, will adapt itself readily to changing social and economic conditions.

Truck Acts exist in several countries today prohibiting employers from paying wages in kind. Before they were passed serious abuses existed. Workers were compelled to buy their requirements from the employers' shops at unduly high prices. The quality of the goods stocked also left much to be desired. The Truck Acts make payment of wages in cash compulsory.

§8. **Industrial Disputes Acts.** The importance of industrial harmony for the maintenance of industrial prosperity can hardly be over-emphasized. Frequent

stoppages of work caused by strikes and lock-outs inflict injury on workers as well as employers, and often cause the most serious inconvenience to the public also. The prevention of industrial disputes through the agency of sound organizations of employers and employees and the conciliation and arbitration of industrial disputes after they occur are engaging increasing attention in the various countries of the world. In England the beginning of the policy of regulating industrial disputes can be traced to the Conciliation Act of 1896. Further steps were taken in 1911 and 1919. The Indian Trade Disputes Act of 1929 closely follows the English model. These Acts establish a machinery for the voluntary settlement of industrial disputes and do not provide for compulsory arbitration. Public opinion is regarded as the decisive factor in settling industrial disputes and the main function of the court of inquiry, or Board of Conciliation, is to help in clear framing and discussion of the issues regarding costs, profits and wages. In a few countries, such as New Zealand and Australia, provision exists for compulsory arbitration of industrial disputes, strikes and lock-outs being forbidden.

The foregoing survey of labour legislation is a convincing proof of the new liberal attitude of the State and of public opinion towards the working classes. This attitude is fully justified on the grounds of social and economic efficiency as well as on humanitarian grounds.

§9. Trade Unions and their functions. We may close this chapter with a brief description of Trade Unions and their functions. A modern Trade Union, unlike the medieval Craft Guild, is entirely an association of wage-earners or workers in the same or allied trades. It discharges two main groups of functions. In the first place, it serves as a Mutual Benefit or Friendly Society and pays allowances to its members when in difficulties caused by sickness, accident, unemployment, superannuation, etc. It thus tries to make its members independent of public or private charity.

A far more important function performed by the Trade Union is that it safeguards and promotes the economic

interests of its members as against employers. Its chief aim is to secure for its members higher wages, shorter hours of work, safe and pleasant conditions of work, and to defend individual workers from arbitrary and unjust treatment by their employers.

The need for combination among workers and for collective bargaining under the modern economic conditions is obvious. As Marshall puts it, 'a single large employer is a combination in himself', and unless he is met by a combination of workers there is little chance that the worker, bargaining in his individual capacity, will secure a fair wage. That workers should combine is all the more necessary nowadays as employers have their own powerful associations, and there is a great deal of justification for the claim made by Trade Unions that they make economic friction work for the labourer instead of against him. The chief weapon used by Trade Unions in discharging this function is the strike.

Trade Unions also perform a third function, which may be called the political function, by financing and running electioneering campaigns for securing the election of their own representatives to the legislature.

The modern Trade Union movement is essentially a product of the conditions created by the Industrial Revolution. It was after a good deal of struggle by the industrial workers that Trade Unions were legally recognized by the State, in England by the Trade Union Act of 1871. The Trade Union movement in India is of very recent origin and has now the benefit of recognition under the Trade Union Act of 1926.

SUMMARY

I. WELFARE WORK

Welfare work and labour legislation are the two principal heads under which measures have been taken in various countries in order to improve the conditions of employment and promote the well-being of industrial workers.

Welfare work aims at the improvement of the health, safety and general well-being of the worker through the agency of the State, the employers, the associations of employees called Trade Unions, and social agencies.

Welfare work includes the following principal items: (i) Education, (ii) Medical aid, (iii) Maternity benefits, (iv) Recreation, (v) Housing, and (vi) Provision of cheap grain and cloth shops, canteens, creches, etc.

II. LABOUR LEGISLATION

The principal evils of the modern industrial system, such as unduly long hours of work, exploitation of the labour of children and women, intolerable conditions of work in factories, and absence of any systematic relief to workers in times of economic stress, were for a long time left unredressed. Owing to the spread of better knowledge about the abuses of the factory system, the quickening of public conscience and more effective labour organization, it has been possible to impose a considerable check on these evils through suitable labour legislation.

The main items of labour legislation are: (i) Factory Acts; (ii) Workmen's Compensation Acts; (iii) Sickness and Unemployment Insurance, Old Age Pensions and Maternity Benefit Acts; (iv) Legal Minimum Wages and Truck Acts; and (v) Industrial Disputes Acts.

(i) *Factory Acts* regulate the hours of work, age of employment, lay down rest pauses, holidays, conditions in factories and mines, and prohibit the employment of children and women in certain trades (e.g. for underground work in mines) and during certain hours (at night).

(ii) *Workmen's Compensation Acts* make the employers liable for injuries received by workers in the course of employment, and provide for a scale of compensation according to the nature of the injuries received.

(iii) The third main item of labour legislation is the statutory provision against certain disabilities to which the worker is exposed, such as sickness, unemployment, old age, and, in the case of women workers, child-birth. *National insurance schemes* on a contributory basis have been introduced in Great Britain and Germany to deal with sickness and unemployment. Old age pensions are paid by the State in a few countries. Maternity benefits are provided for by legislation or otherwise in many countries.

(iv) In some countries *minimum wages* have been prescribed by law, and representative Trade Boards have been established for fixing wages in sweated industries where, owing to lack of labour organization, excessively low wages prevail. A general (national) legal minimum wage has been adopted in a few countries like New Zealand and Australia.

Truck Acts (prohibiting payment of wages in kind and insisting on cash wages) also exist in England and some other countries.

(v) *Industrial or Trade Disputes Acts* provide machinery either for voluntary or compulsory arbitration of industrial disputes between employers and employees.

QUESTIONS

1. Give a clear definition of welfare work, its objects, and the agencies through which it is carried on.
2. What are the principal items of welfare work? Give Indian examples.
3. Examine the evils of modern industrialism and the factory system and show the need for the intervention of the State to safeguard the position of labour.
4. State in general terms the aims and objects of labour legislation in modern times and mention the principal items covered by it.
5. Indicate the scope of Factory and Workmen's Compensation Acts respectively.
6. Write a brief note on a legal minimum wage.
7. How are industrial disputes settled?

Chapter XIII

PUBLIC FINANCE

§1. **Nature and divisions of public finance.** Public finance is concerned with 'income and expenditure of public authorities, and with the adjustment of the one to the other'.¹ There are two main divisions of Public Finance, (i) Public Income or Revenue; and (ii) Public Expenditure. Two more branches may be added to these. (iii) Public Credit or Debt; and (iv) Financial Management or Administration. In this chapter it is proposed to deal with Public Revenue, Public Expenditure, and other functions of the State. With the growing activities of the State the principles and problems of public finance are naturally receiving increasing attention at present.

Public finance differs from private finance. While in the case of private finance the individual has to adjust his expenditure to his income, which is fixed, the State first estimates its expenditure and then arranges to raise funds sufficient to meet public needs conforming to a certain level of urgency.

We cannot, however, draw a hard and fast line between the rules of public economy and private economy, for it is clear that in the long run the State, like the individual, must cut its coat according to its cloth, i.e. according to the taxable capacity, or income, of its citizens.

§2. **Sources or classification of public revenues.** The sources of public revenues fall into four main classes:

(i) *Direct revenue* from State property in land and forests and commercial undertakings. This is non-taxation revenue, which the State like any private person derives from its properties and business by charging prices for specific services rendered and by the sale of commodities, as in the case of postal rates, or railway fares for the use of

¹ H. Dalton, *Principles of Public Finance*, p. 3.

Government railways, or charges for the supply of water through the Irrigation Department in India. So also is income from lands directly owned by the Government or from shares and other investments made by the Government (as in the case of Suez Canal shares held by the British Government).

(ii) *Derived revenue*, i.e. derived by the State from the income of its citizens in the form of (a) taxes and (b) fees, e.g. license fees.

(iii) *Anticipated revenue* in the form of public borrowings, which in essence constitute an anticipation of future revenue, out of which interest charges are met and repayment of the principal is effected.

(iv) There is a miscellaneous class of public revenues comprising such items as (a) tributes and indemnities, (b) fines, (c) profits from currency and note issue, and (d) gifts, etc.

§3. Definition and characteristics of taxation. We shall now proceed to consider taxation revenue and the principles underlying a good system of taxation.

'A tax is a compulsory contribution of the wealth of a person or body of persons for the service of the public powers.'—(G. F. Bastable). The chief thing to remember about a tax is that its payment is compulsory and necessarily involves sacrifice. There is no *quid pro quo*, i.e. no exact equivalence between the tax paid by the individual and the service rendered to him by the State or benefit received by him from the State. The *service of public powers or general utility* is the predominant element, and its value is neither calculable nor is it the same for every citizen. On the other hand a *fee* is a voluntary payment for service rendered by the State, e.g. education fees.

§4. Canons of taxation. There are four main canons or principles of taxation as stated by Adam Smith in his *Wealth of Nations*, namely, (I) Equality, (II) Certainty, (III) Convenience, and (IV) Economy. The first of these, namely the canon of *Equality*, raises some fundamental issues of a controversial character.

§5. (I) Equality of taxation. Smith stated the canon of equality thus: 'The subjects of every State ought to

contribute towards the support of the Government, as nearly as possible in proportion to the revenue which they respectively enjoy under the protection of the State.' This canon is found to contain the germs of the two main theories of what constitutes equitable or just taxation, (i) the equality of sacrifice theory, and (ii) the faculty or the ability theory.

Owing to the great inequalities of wealth prevailing in modern society, the question of what is a fair basis of taxation has been a subject of acute controversy. Obviously, equality of taxation cannot be attained through equality of payment. Differentiation between the rich and the poor citizens is necessary to attain justice in taxation. Adam Smith suggested the basis of ability of the taxpayer to contribute to the State. Now the term 'ability' is capable of a twofold interpretation, subjective or objective, according as emphasis is laid on the convenience or sacrifice involved in the payment of the tax (subjective), or on the ability or faculty of the taxpayer as indicated by his property or income, i.e. according to his taxable capacity (objective). We thus get two main principles, one underlying the equality of sacrifice theory and the other underlying the faculty theory, sometimes called the ability theory. We shall examine these separately.

§6. The equality of sacrifice theory. This was first emphasized by John Stuart Mill, who maintained that every taxpayer should be called upon to make the same or equal sacrifice. It is generally agreed that in income-tax a certain minimum income should be free, i.e. exempted from taxation; otherwise taxation of small incomes would lead to the sacrifice of necessities of life, while that of large incomes would mean sacrifice only of superfluities or luxuries. The sacrifice imposed on the poor would thus be far heavier than that imposed on the rich. We find that in most income-tax systems there is a minimum tax-free income. Thus in India incomes below Rs. 2,000 a year are not taxed. The same idea makes some people advocate the exemption of taxes on food-stuffs, salt and other necessities of life.

The principle of equality of sacrifice is also made the basis of progressive taxation. It is argued that money has varying degrees of utility to the rich and poor, and that as the income increases its marginal utility falls. Proportionate taxation, i.e. a fixed percentage of income, say 2%, contributed as tax to the State would mean greater sacrifice for the poor than for rich persons. Progressive taxation, under which the *rate* of taxation increases with the size of the income, is therefore essential for equalizing sacrifice. Most modern tax systems have adopted this principle, and important taxes like the income-tax and death duties are often heavily graduated. For instance, in India, the rate of income-tax (in 1938) which is 6 pies in the rupee on incomes between Rs. 2,000 and Rs. 4,999 rises to 9 pies on incomes between Rs. 5,000 and Rs. 9,999 and so on until it reaches 26 pies on incomes of Rs. 1,00,000 and upwards. The super-tax is similarly graduated. The socialist parties in various countries prefer progressive taxation to proportional taxation as one method of reducing inequalities of wealth by taxing the rich more heavily and spending the tax proceeds for the amelioration of the condition of the masses.

§7. **The faculty or ability theory of taxation.** As previously stated, the word 'ability' as used by Adam Smith is objectively interpreted to mean the capacity of the taxpayer to contribute, as judged by the monetary value of his wealth. The faculty or ability theory is much older than the sacrifice theory. At first faculty was measured by property. Later it came to mean income. Formerly, the simple rule of arithmetical proportion was applied, but today the rule of progression is generally followed on the ground that the ability to pay the tax increases progressively. The faculty grows in more than arithmetical proportion to increase of income. Progression and exemption of a minimum income can be justified on the theory of faculty also. A certain minimum income requires exemption since the taxation of such income would diminish the general efficiency of labour. Similarly, as regards allowances and abatements, it is obvious that a bachelor with Rs. 500 a year possesses a higher faculty

to pay than a married person with a family earning the same income.

§8. **Other canons of taxation.** The other canons of taxation are largely of the nature of administrative rules and do not raise any question of principle. They may now be briefly considered.

(II) *Certainty*.—As Adam Smith points out, the time of payment, the manner of payment and the amount of the tax to be paid ought to be clear and intelligible to all concerned. The land revenue in India when it used to be farmed to middlemen in the eighteenth century is a good illustration of the evils, such as arbitrary exactions, corruption of State officials and uncertainty of yield which follow from disregarding this canon.

(III) *Convenience*.—Every tax should be levied at the time and in the manner most convenient to the taxpayer. Thus, in India land revenue is collected in instalments which fall due after the harvest is taken. Indirect taxes on the whole conform better to this canon than direct taxes.

(IV) *Economy*.—The cost of collection of a tax should be kept as low as possible in order that the net yield of a tax secured by the State should be as large as possible without at the same time imposing any serious handicap on trade and production. Thus internal transit dues are to be condemned on this account.

§9. **Direct and indirect taxes.** We may next examine the usual distinction between direct and indirect taxes. 'A direct tax is really paid by the person on whom it is legally imposed, while an indirect tax is imposed on one person, but paid partly or wholly by another owing to a consequential change in the terms of some bargain between them. Thus an indirect tax is conceived as one which can be shifted or passed on, a direct tax as one that cannot.'¹ Perhaps the best example of a direct tax is the income-tax, while that of an indirect tax is customs duties, or an excise like the salt tax in India. The latter is collected by the Government from a few

¹ See Dalton, op. cit., p. 33.

licensed manufacturers or dealers but is paid ultimately by all consumers of salt on the enhanced price at which salt is sold in the Indian bazaars. On the other hand, the burden of the income-tax falls on the person assessed to it just as the burden of the land tax, which is also a direct tax, falls on the land-holder.

The main advantage of a direct tax is that it brings home to the taxpayer the responsibilities of citizenship and makes him critical of Government extravagance. On the other hand, indirect taxes encourage prodigal expenditure on the part of Governments, who can raise funds with comparative ease by levying such taxes, because the people who really pay them are scarcely aware of the fact.

Direct taxes are in principle sounder and more equitable than indirect taxes since they can be better graded to suit the ability of the taxpayer. A direct tax like income-tax, for example, lends itself more readily to progression, and the richer sections of society can thus be made to contribute a fair share towards the expenses of the State. Indirect taxes are generally regressive in their nature, pressing more heavily on the poor than on the rich. For instance, the poor man and the rich man both consume practically the same amount of salt, and therefore pay the same amount of tax, which is unfair. To equalize the burden, the poor man should be required to pay less because his income is smaller.

Direct taxes are, however, unpopular since the taxpayer cannot help being aware of them. For the same reason, there is a stronger tendency to evade them than in the case of indirect taxes, and there is greater possibility of fraud. On the other hand, an indirect tax is less felt by the taxpayer. He pays little by little every time he buys the taxed commodity. The price he pays is no doubt higher on account of the tax, but if he complains of the price at all he is inclined to blame the producer of the commodity rather than the taxing authority. He is taxed in the dark, so to speak, and fails clearly to see that he is taxed, especially as the tax is not paid in one lump sum but is spread over a series of purchases.

Another merit of indirect taxes is that through some of them alone (e.g. the salt tax in India) can the masses be reached, and thus everybody be made to contribute his quota towards the expenses of the State. In practice a combination of direct and indirect taxes is found necessary.

§10. Functions of the State. (i) *General.*—As a preface to the study of public expenditure we will now consider the functions, especially the economic functions, performed by the State. The older English writers like Adam Smith set very narrow limits to the functions of the State. According to their *laissez-faire* ideas the sole duty of the State was to protect the life, liberty and property of the State. The individual, they said, understood his interest best, and the best way of achieving the greatest good was to leave him free to pursue his own interest. The *laissez-faire* theory, however, broke down as the growing economic and social evils of the new industrial system created by the Industrial Revolution became apparent, especially as the result of the vigorous criticism to which it was subjected from a socialistic angle. The World War of 1914-18 gave a powerful stimulus to the extension of State activity, and the tendency has been further strengthened by the recent economic depression. Under the influence of all these factors the economic functions of government are becoming wider and wider. Even the non-economic functions, such as defence and justice, have generally an important economic bearing. We shall, however, now consider the functions that are *directly* economic.

(ii) *Economic.*—In the first place, *the State may itself own and manage economic enterprises.* These enterprises are of growing importance in the sphere of central as well as local government. When local authorities undertake such enterprises, it is referred to as Municipal Socialism or Municipal Trading. The manufacture of armaments and ammunition, which are vital for national defence, must be directly under State management. Certain monopolies like the Post Office, currency, the supply of water, gas, street traction are passing more and more into the hands of the State, the justification being that if they are owned

and managed by private people, serious abuses are likely to creep in, and State regulation may be difficult, if not impossible. Or again, the State may justifiably own and manage necessary enterprises to which private capital is not likely to be attracted or in which the return to capital may be distant and uncertain. Examples of this are railways and irrigation works in certain areas, afforestation, road-making, etc. Lastly, the State may be called upon to undertake as pioneer certain industries in order to prepare the way for subsequent private enterprise.

(b) In the second place, *the State may seek to regulate certain economic activities* under private enterprise. We have already referred to the need for controlling such social monopolies as are left in private hands. Anti-adulteration laws offer another example of State regulation, as also factory legislation and the regulation of wages, Workmen's Compensation Acts, marine regulations, and the regulation of weights and measures.

(c) In the third place, the State may encourage certain economic activities and industries through protective duties and bounties and subsidies, Government purchases of private stores, Imperial Preference, Trade Agreements, etc.

§11. Social activities of the State. These occupy an intermediate position between non-economic functions such as defence and justice on the one hand, and the economic functions of the State on the other. General and technical education, provision of parks, libraries, village uplift, public health, housing schemes for the benefit of the working classes, poor relief, unemployment allowances and social insurance—all these activities which are aimed at promoting the welfare of the people improve their economic efficiency in the long run, and therefore the outlay of State funds on them is more than merely humanitarian in character.

§12. Public expenditure. The spending of public money is one of the major functions of the State. The following is a list of the actual items of expenditure of modern States.

(i) The maintenance and equipment of armed forces, including police, (a) in peace, and (b) in war.

(ii) The administration of justice.

(iii) The maintenance of the ceremonial head of the State.

(iv) The maintenance of the machinery of civil government.

(v) Public debt charges.

(vi) Expenditure directly devoted to 'fostering industry and commerce' (e.g. consular service) and the performance of industrial and commercial functions, such as supply of currency, conduct of postal service, transport services, etc.

(vii) Social expenditure on health, education, old age pensions, poor relief, provision for unemployment, etc.

Modern States are showing a marked tendency towards growing public expenditure, partly owing to the increasing expenditure on armaments and partly to the widening range of the functions undertaken by them. Part of this expenditure—e.g. for war or the construction of public works like railways—is met by raising loans.

§13. Public revenue and expenditure in India. The following is an illustrative list of the principal heads of Central and Provincial revenues and expenditure in India in 1935-6.

| Heads of Revenue | | Central | Provincial | Heads of Expenditure | | Central | Provincial |
|-------------------------------------|----|---------|------------|----------------------------------|----|---------|------------|
| Customs | .. | 54.11 | — | Direct demands on revenue | .. | 4.21 | 8.53 |
| Taxes on Income | .. | 17.07 | 3 | Forest and other capital outlay | .. | 1 | 7 |
| Salt | .. | 8.43 | 3 | Railways (Interest on debt etc.) | .. | 31.98 | 1 |
| Opium | .. | 61 | — | Irrigation | .. | 5 | 6.73 |
| Land Revenue | .. | 26 | 31.91 | Posts and Telegraphs | .. | 80 | — |
| Excise | .. | 39 | 14.87 | Debt Services | .. | 13.50 | 3.58 |
| Stamps | .. | 39 | 11.44 | | | | |
| Forest | .. | 16 | 4.15 | Civil Administration— | .. | | |
| Registration | .. | 1 | 1.17 | General Administration | .. | 1.70 | 10.36 |
| Payments from Indian States | .. | 72 | — | Administration of justice | .. | 8 | 5.24 |
| Scheduled taxes | .. | — | 46 | Jails .. | .. | 23 | 2.24 |
| | | | | Police .. | .. | 53 | 13.09 |
| | | 82.17 | 64.06 | Education | .. | 30 | 11.96 |
| | | | | Medical | .. | 24 | 3.61 |
| Railway (net receipts) | .. | 31.98 | 1 | Public health | .. | 16 | 1.32 |
| Irrigation (net receipts) | .. | — | 9.44 | Agriculture | .. | 41 | 2.33 |
| Posts and Telegraphs (net receipts) | .. | 80 | — | Industries | .. | 7 | 88 |
| Interest (Debt Services) | .. | 86 | 2.02 | Other Departments | .. | 6.73 | 87 |
| Civil Administration | .. | 1.00 | 5.66 | | | | |
| Civil works | .. | 30 | 1.55 | Total .. | .. | 10.48 | 51.10 |
| Miscellaneous | .. | 3.95 | 6.28 | Civil works | .. | 2.25 | 8.01 |
| | | | | Military Services | .. | 50.19 | — |
| | | | | Miscellaneous | .. | 7.60 | 10.66 |
| Grand Total .. | .. | 1,21.07 | 89.02 | Grand Total .. | .. | 1,21.07 | 88.69 |

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¹ Represents the Provincial Government's share of additional import duty on foreign salt.

SUMMARY

The *main divisions* of Public Finance are: (i) Public revenue, and (ii) Public expenditure (including functions of the State).

Public finance is different from private finance since the State, unlike the individual, first estimates its expenditure, the income then being adjusted to the expenditure.

The *sources of public revenue* can be divided into the following classes: (i) Direct revenue or non-taxation revenue; (ii) Derived revenue, i.e. revenue derived from the income of citizens by means of taxes, fees, etc.; (iii) Anticipated revenue (public debt); (iv) Miscellaneous, i.e. tributes, fines, gifts, currency profits, etc.

'A tax is a *compulsory* contribution of the wealth of a person or body of persons for the *service of public powers*.' The contribution is *compulsory* and is used for purposes of general utility, no attempt being made to return to every individual taxpayer benefit exactly equivalent to what he pays as tax.

Unlike a tax, a *fee* is a *voluntary* payment for a *specific* benefit received by the individual paying the fee.

The *canons of taxation* are: (i) equality, (ii) certainty, (iii) convenience, and (iv) economy.

The canon of equality is of great theoretical importance and is the parent of two main theories, namely (a) the equality of sacrifice theory, and (b) the faculty or ability theory.

According to the *equality of sacrifice theory*, the sacrifice asked for by the State from different individuals should in fairness be equal. As applied to income-tax, this theory offers justification for the widely prevalent practice of (1) exempting a certain minimum income from taxation altogether, and (2) adopting the principle of progression. The same practice can also be justified with reference to the *theory of faculty or ability*, which sets out not to equalize sacrifice but to exact from different taxpayers what each can *afford*. The equality of sacrifice theory is subjective because it concerns itself with the feelings of the taxpayer. The faculty theory is objective because it concerns itself with an objective fact, namely, the ability of the taxpayer to pay more or less.

Other practical rules of taxation are that the taxpayer should not be left in any doubt as regards what and when he has to pay, and his convenience should be consulted as far as possible. Again, the cost of collection should bear a reasonable proportion to the amount collected, and taxes should be productive rather than numerous.

Direct and indirect taxes.—Direct taxes fall and are intended to fall on the persons from whom they are collected. Indirect taxes are in the first instance collected from one set of persons, but they are shifted, and are intended to be shifted, to another set of persons.

Direct taxes have the advantage of creating a sense of responsibility among those who pay them. They also check Governmental

extravagance and can be graded so as to distribute the burden of taxation equitably.

Indirect taxes are less difficult to administer and less expensive than direct taxes. Again, if it is a sound political principle that every citizen should be made to contribute something towards the expenses of the State, this principle can conveniently be enforced only if we rely upon certain indirect taxes. Both direct and indirect taxes are found necessary in practice.

The economic functions of the modern State can be enumerated as follows: (i) Enterprises may be owned and managed by the State directly, e.g. some of the railways in India; (ii) The State may regulate private enterprise in the interests of the public; and (iii) The State may encourage certain private economic activities.

In addition to these functions, the State usually undertakes a number of other functions not in themselves economic but tending to improve the economic efficiency of the people through education, sanitation, etc.

Public expenditure falls under the following main heads: (i) Internal and external security; (ii) Maintenance of the machinery of government; (iii) Service of debt; (iv) Industrial and Commercial functions; and (v) Social expenditure. Its growth has been remarkable in recent years.

QUESTIONS

1. Indicate the various sources of public revenues, giving Indian examples.
2. What is a tax. How does a tax differ from a fee? Must a tax always be paid in money?
3. Enumerate with brief comments Adam Smith's canons of taxation.
4. Explain (i) the equality of sacrifice theory and (ii) the faculty theory.
5. What is progressive taxation? How can it be justified with reference to the canon of equality?
6. Clearly explain the distinction between direct and indirect taxation. Give illustrations from Indian conditions.
7. Discuss the comparative merits of direct and indirect taxation.
8. Set forth and explain the economic functions of the State. Give Indian examples.
9. What are the principal items of public expenditure? Give Indian examples.

Appendix I

GEOGRAPHY AND CLIMATE OF INDIA ¹

§1. **Area and population.** We have already considered the importance of natural resources and the part played by them in shaping the economic life of a country.² We shall now supplement this treatment with a short note on the geography and climate of India.

British India is 1,094,300 square miles in area with a population of 271,526,933 (according to the Census of 1931 which included Burma), while 711,032 square miles of territory with a population of 81,310,845 is under Indian States and Agencies. The length of the country from north to south is about 2,000 miles, and about 2,500 miles from east to west. India has a land frontier of about 6,000 miles, and the length of her coastline is roughly 5,000 miles. She is thus a world in herself, being fifteen times as large as Great Britain and equal to the whole of Europe excepting Russia. Her total population (353 millions) is about one-fifth of the world-population.

§2. **Geographical situation.** The natural boundaries of India stand out prominently on her map. On the land side there are the mountain ranges of the Himalayas on the north and the Hindu Kush and Sulaiman mountains on the north-west. The north-eastern frontier is flanked by Burma. The only gateways to India by land (i.e. the Khyber and the Bolan passes) are on the north-west frontiers, from Afghanistan and Baluchistan. The Indian coast is surrounded by the two great arms of the Indian Ocean, the Arabian Sea on the west and the Bay of Bengal on the east. India is thus readily approachable from her sea boundaries.

¹ This note is intended to meet the requirements of the Intermediate Economics Syllabus of the University of Bombay and should be read with ch. v, §5.

² See ch. v, §5.

As has already been pointed out, India occupies a highly favourable situation as regards the rest of the world for purposes of international trade, standing as she does at the centre of the eastern hemisphere ; she commands trade routes running in all directions, and the sea routes are by far the most important on account of her extensive seaboard.

India, however, suffers from a deficiency of natural harbours capable of accommodating large modern vessels. Karachi, Bombay, Goa and Cochin are the only important ports on the western coast. The east coast is surf-bound and without any natural harbours. The harbour of Madras owes its present position largely to an expensive outlay on its sea-walls. Vizagapatam on the same coast is gradually gaining importance as another artificial harbour. Calcutta on the Bay of Bengal is naturally well-situated, but suffers from bars which form in the Hooghly and make constant dredging operations necessary. Chittagong is a similar case. We can therefore readily realize why the bulk of India's foreign trade is confined to four ports, namely Calcutta, Bombay, Madras and Karachi.

The present shipping position of India is very unsatisfactory.¹ As regards inland communication, the principal ports of India are already connected with the inland trade centres by a network of railways and roads. Northern India enjoys good facilities for internal communication owing to navigable rivers like the Indus and the Ganges, and her vast plains lend themselves to the easy construction of roads and railways. Peninsular India is at a disadvantage in this respect owing to the rugged and mountainous nature of the country and its lack of large perennial rivers. The state of rail and road communications in the rural areas of India is backward and needs immediate attention.² The post and telegraph are now sufficiently familiar and widespread in India, while the telephone and wireless, which have become such important adjuncts of modern trade and economic activity, are still in a backward state of development, the use of the

¹ See ch. x, §23.

² See ch. x, §§17 and 20.

telephone being confined to the larger towns. On the whole, as a result of these modern facilities for inland communications, the economic isolation of the village is largely a thing of the past.

§3. **Three well-marked divisions of India.** India falls into the following three well-marked divisions: (i) the Peninsula, (ii) the Indo-Gangetic Plain, and (iii) the Himalayan Range.

(i) *The Peninsula.*—This is an elevated plateau (called the Deccan, or the plateau of the south) separated from the Indo-Gangetic Plain by the Vindhya and Satpura ranges. It is flanked by the coast ranges known as the Western and Eastern Ghats. It is thus triangular in shape with Cape Comorin as its apex. This tableland of the peninsula is generally uneven and rocky, with more or less forested hill peaks and ranges, and it tilts like the roof of a house from west to east. The Western Ghats, which form a gigantic and continuous sea-wall, intercept the monsoon clouds, which are compelled to deposit their moisture on the mountain barrier and the narrow strip of land between the Ghats and the sea (known as the Konkan), thus making the inland region peculiarly liable to droughts and famine.

The principal peninsular rivers are the Nerbada, the Tapti, the Mahanadi, the Godavari, the Kistna and the Cauvery. They depend on the rains, and are not perennial like the Himalayan rivers, which receive water from the melting of the mountain snows even in summer. They not only dry up in the hot weather, but many of them cut their way through deep gorges which make navigation impossible and irrigation expensive.

The principal products of the peninsula are millets, rice, oil-seeds, sugarcane, pulses, cotton, tea, coffee and spices. The main kinds of trees are teak, sal, sandalwood and coconut.

(ii) *The Indo-Gangetic Plain.*—This lies between the peninsula and the Himalayas and is traversed by two river systems, the Indus system to the west and the Ganges system to the east. The Indo-Gangetic plain, being composed of rivers and silt, is very fertile and forms the most extensive sheet of level cultivation in the world.

Its Himalayan rivers are perennial: their fertile basins have been the seats of the ancient pre-Aryan and Aryan civilizations and are the natural granaries of the country. Some of them (e.g. the Brahmaputra, Ganges and Indus) are navigable, and served as great carriers of commerce in the pre-railway days. They are also the feeders of the important productive irrigation works on which the prosperity of the Punjab, Sind and the United Provinces so largely rests. The main products of the Indo-Gangetic plain are wheat, barley, millets, sugarcane, oil-seeds, rice, cotton, jute, indigo and opium. The vegetation is varied and plentiful—sal in the north, teak in Central India and mulberry in Bengal. The Indo-Gangetic plain is the most densely populated part of India owing to its fertile alluvial soil and assured rainfall.

(iii) *The Himalayas*.—The Himalayan mountain ranges of the north—the highest in the world—dominate the Indo-Gangetic plain. They account for 1,250 miles out of the total length of over 2,000 miles of great mountain ranges which cut India off from the rest of Asia. Apart from their political significance as an impregnable barrier, the Himalayas exercise a dominating influence on economic conditions by their effects on rain, winds, heat, cold, moisture and vegetation. They intercept the monsoon and supply the plains and rivers with rain-water. We have already referred to the economic value of the Himalayan rivers. The Himalayan watersheds present rich possibilities of hydro-electric power. Lastly, they are a rich source of vegetation and nourish valuable forests which in their turn regulate the supply of rain-water.

§4. *Climate and seasons*. It is impossible to make any general statement about the climate of India because within its boundaries almost any type of climate that is known to the tropics or the temperate zone may be found. But on the whole the Indian climate may be described as semi-tropical. Peninsular India, being situated within the tropics, has a higher mean temperature throughout the year and shows small variations in the different seasons. Northern India, on the other hand, is characterized by extremes of temperature during summer and winter. At

Jacobabad the thermometer sometimes rises to 125° in the shade during the hot weather and falls to 25° in the cold weather. Where the seasons are clearly defined in India they are three in number : (i) a cool dry season (winter) when northerly winds prevail ; (ii) a wet season, sultry and oppressive with the inflowing south-west monsoon ; and (iii) a hot dry season before the beginning of the rains, which usually come suddenly with heavy thunder-storms.¹

§5. Rainfall. The rainfall like the climate shows striking variations. For example, Cherrapunji in the Assam hills registers a rainfall of 460 inches annually, while Upper Sind gets less than 3 inches. Climatically the Indian peninsula is part of the great monsoon area of Asia and exhibits the monsoonal control in a more perfect form than any other part of this area. The rainfall of India has a definite periodicity due to this monsoonal control. The term 'monsoon' technically applies to the reversal of the winds which takes place throughout the monsoon area and which divides the climatic year into two distinct periods, that of the south-west monsoon, and that of the north-east monsoon. During the hot season the land gets hotter than the waters of the Indian ocean to the south. Moisture-laden winds therefore blow from the Indian ocean into the low-pressure land area to displace the hot, light air in it in the month of June. By July the *south-west monsoon* is fully established over India, the winds being generally south-west over the Deccan, south over the Ganges delta, and south-east up the Ganges valley. The Indus basin is the last area reached by these winds, and the first from which they retreat, so that here the yearly rainfall is very low. It is heaviest on the Western Ghats (which are first struck by the monsoon), and the Himalayas. In September the force of the monsoon begins rapidly to decline. The south-west monsoon, which reaches every part of India, accounts for nearly

¹ The effect of the climate on efficiency of labour and economic progress in general, with special reference to India, has already been considered. See ch. v, §5.

90% of the total rainfall. It strikes India, in two currents : (i) the Arabian Sea branch, and (ii) the Bay of Bengal branch. The former crosses the west coast of India, giving rain to the peninsula, the Central Provinces and Rajputana. The Bengal branch gives copious rainfall to Bengal, Assam and Bihar, until it is arrested by the Himalayas. It then turns towards the west and, meeting with the Arabian Sea branch, gives a moderate rainfall to the whole tract from Bengal to the Punjab.

The *north-east monsoon*, which yields about 10% of the total annual rainfall, is really the south-west monsoon in retreat. During the winter, the land becomes cooler than the sea and moisture-bearing winds blow from the land to the sea, thus giving rise to the north-east monsoon. This winter monsoon gives rain to north and south Madras from October to December. Other parts of India, such as Hyderabad State, Berar, and some parts of the Central Provinces, Bombay and the Punjab, also benefit from the north-east monsoon.

The monsoon determines the harvesting seasons in India and the annual rainfall is a matter of vital importance to the country. Fluctuations in quantity, distribution, and timeliness bring misery or prosperity to the millions of people who are mainly dependent on agriculture. The rainfall enters into every aspect of life in the country, for the prosperity of industry, trade and finance depend on that of agriculture, which in its turn is largely at the mercy of the monsoon, and particularly of the south-west monsoon.

§6. **Soils.** The geological survey of a country includes the consideration of its surface and sub-soil. The soils of India belong to the following geological types :

(i) *The alluvial tracts.*—These are the most extensive and, being very rich in chemical and organic ingredients, are agriculturally the most important. They occupy the greater portion of Sind, Gujarat, Rajputana, the Punjab, the United Provinces, Bengal ; and the Godavari, Kistna, and Tanjore districts of Madras. Along the eastern and western coasts of the peninsula extend alluvial strips which are capable of growing most crops.

(ii) *The Deccan trap formation* covers the greater part of the Bombay Presidency, the whole of Berar, the western third of the Central Provinces and the western part of Hyderabad (Deccan). The soils in this area vary greatly in character and fertility. True *Black Cotton soil* occurs within the area of the Deccan trap below the general level of the foot-hills. It has a great capacity for absorbing and retaining moisture and is specially suited for cotton and millets.

(iii) *The crystalline tract*.—The remaining soils belong to what is known as the crystalline tract, comprising almost the whole of Madras, Mysore, south-eastern Bombay, eastern Hyderabad and two-thirds of the Central Provinces. Though on the whole their fertility is of a low order, certain varieties (e.g. the red or the red-brown loams and clay loams in Mysore and Madras) are very fertile. Rice is their principal crop.

§7. *Mineral production*. In the opinion of the Industrial Commission (1918), the mineral deposits of India are sufficient to maintain most of the key industries in the country.

The minerals produced in India include coal, iron, manganese, gold, silver, lead, zinc, petroleum, mica, wolfram, sulphates, salt, saltpetre, building-stones, and cement-making materials. The total values of the minerals produced in the years 1934 and 1935 were Rs. 23.56 and 26.03 crores respectively. A few words may be said here about the principal minerals.

(i) *Coal*.—With the exception of the United Kingdom, India produces more coal than any other part of the British Empire. The quantity of coal produced in 1935 was about 23 million tons valued at Rs. 6.52 crores. Most of the Indian coal comes from Bengal, Bihar, and Orissa (the Gondwana coalfields). Outside these provinces, the most important mines are in the Central Provinces, Hyderabad State, Central India, the Punjab, Rajputana, Assam and Baluchistan. Indian coal is thus very unevenly distributed, the deficiency being specially marked in the case of the peninsula. Bombay can draw hydro-electric power from the Western Ghats, but the Madras Presidency

is greatly handicapped in its industrial development e.g. in the exploitation of its iron ore deposits by lack of coal. Indian coal is generally poorer in quality than foreign coal. Only the Bengal coal can compare with foreign coal in the production of good metallurgical coke. The industry largely depends on the home market, afforded by the railways, the growing iron and steel industries, and other industries.

(ii) *Iron*.—By far the most important of the iron deposits are those that occur in Singhbhum and Keonjhar, Bonai and Mayurbhunj States of Bihar and Orissa, where recent discoveries include what appears to be a range of iron ore running almost continuously for forty miles. Other sources are Bengal, the Central Provinces, Madras and Mysore State. The remarkable development of the Tata Iron and Steel Company, inaugurated at Sakchi (Jamshedpur) in 1911, has given a great stimulus to the production of iron ore, of which the total production amounted to 2.4 million tons in 1935.

(iii) *Manganese*.—This is a very valuable industrial mineral and is mainly required for the manufacture of steel. It is also used in the heavy chemical, electrical and glass industries. India at one time (1907) displaced Russia as the first among the world's producers of this metal, but later she gave way to Russia. The record output of 1.1 million tons was reached in 1927, but owing to the economic depression of recent years, the output fell to only 218,307 tons in 1933 and the industry is still in a stagnant condition though there has been a partial recovery, the output having increased to 641,483 tons in 1935. The principal manganese-producing areas are the Central Provinces, Madras, Bombay and Mysore.

(iv) *Gold*.—India contributes only about 3% of the world's production of gold, the great bulk of which is mined in the Kolar field in eastern Mysore. India produced 327,652 ounces of gold, valued at Rs. 3.04 crores, in 1935.

(v) *Petroleum*.—There are two distinct oil-bearing areas in India on either side of the Himalayan area; one on the east, and by far the most important, includes Assam and Burma and contributes 95% of the output; the other on

the west includes the Punjab and Baluchistan. The most successful oilfields are found in the Irrawaddy valley in Burma, from which nine-tenths of the indigenous petroleum is obtained. Including Burmese production India's contribution to the world output of petroleum is less than 1 per cent. The internal consumption of petroleum and petrol has increased enormously in recent years, and large quantities are still imported from abroad in spite of the extension of home supplies. The recent separation of Burma from India has greatly increased our dependence on foreign countries in this respect.

(vi) *Salt*.—About three-fourths of the salt consumed in the country is produced internally. The total output of salt produced in India (including Burma and Aden) was 1·95 million tons in 1935, the imports in the same year being 393,972 tons. The principal source of Indian salt is evaporation of sea water on the coasts of Bombay and Madras. A second source is the rock salt obtained from the Salt Range and the Kohat mines in the Punjab. The other two sources are brine salt from the Sambhar lake in Rajputana and salt brine condensed on the border of the Lesser Rann of Cutch. Foreign salt is largely imported for the Bengal market.

(vii) *Other minerals*.—Other minerals of subordinate importance are cement-making materials, mica, saltpetre, lead, tin, copper, zinc, silver, bauxite (aluminium), jade, chromite, potash, amber, diamonds, rubies and sulphur.

§8. *Vegetable resources*. India grows a large variety of vegetable products belonging to the sub-tropical and temperate zones—food-grains, herbs, seeds, fibres, forest products, etc.¹

§9. *Forests*. Among the most valuable natural resources of India must be reckoned her magnificent forests, whose character is largely governed by rainfall and elevation.

In the economy of man and of nature, forests are of

¹ See ch. vi, §20 for further particulars regarding the various crops.

direct and indirect value. The direct utility of forests is chiefly due to their produce, such as timber and firewood and the raw materials they afford various industries, and the grazing for cattle they provide. They also offer employment to a large number of persons working in and near them and to others engaged in working up the raw products. Forest produce is divided into two main heads: (i) Major produce, i.e. timber and firewood; and (ii) Minor produce such as lac, tanning materials, essential oils, turpentine and resin. Forest research has proved the utility of bamboo for the manufacture of paper pulp. The indirect utility of forests is also not negligible. They make the climate more equable, prevent the soil from being washed away by heavy rains, help to regulate the water supply by rendering the flow of water in rivers more continuous, increase the fertility of the soil, afford shelter to cattle and useful birds, and produce a healthy aesthetic influence upon the people.

The conservation of forests is therefore of the utmost importance to every country. The first organized steps towards forest conservation were taken about the year 1855. In 1864 a Forest Department under an Inspector-General of Forests was established in the major provinces. Since then the Forest Department has grown and now controls more than one-fifth of the total area of British India. The object of forest administration is to eliminate the danger of over-working the forests and to improve their yielding capacity. The Forest Research Institute, established in 1906 at Dehra Dun, has been doing useful research work.

§10. Animal resources. The importance of animal life to an agricultural country like India cannot be exaggerated. The variety of Indian conditions has naturally developed a great variety of animal life. The most important animals are: (i) Cows and buffaloes mainly prized for milk; (ii) Bullocks which play an important part in the agricultural economy of India both as draught animals and on the field; (iii) Goats and sheep which, apart from yielding meat and wool, supply together with cattle practically all the manure used by the Indian cultivator. Other animals

are donkeys, used as pack-animals everywhere; camels, used for transport across deserts (e.g. Sind) and generally in northern India; and fish, which are of immense importance as articles of diet in Bengal, Assam and the coast strips of the peninsula. The extensive forests of India shelter a large variety of wild animals, reptiles and birds.

§11. Sources of power. The principal sources of power available in India are coal, wood, fuel, oil and alcohol, wind and water. We have already referred to the uneven distribution of coal and its marked deficiency in the peninsula. The situation as regards the other sources of power, except water power, is also not very favourable. At present water is the most promising source of power in India, especially in the Western Ghats and Himalayan watersheds and rivers. The Gokak Mills situated near the Gokak Falls in the Southern Maratha country (Bombay) were the pioneers in the use of hydro-electric power. In recent times considerable attention has been paid to large hydro-electric power schemes, e.g. on the Cauvery river at Sivasamudram, for supplying power to the Kolar gold fields (1903), on the river Jhelum in Kashmir, and at the Tata hydro-electric works in the Western Ghats in the Bombay Presidency (1915). The three Tata hydro-electric schemes mark a big step forward in the industrial development of India. These schemes, which have a combined normal capacity of 246,000 horse-power, provide electrical energy for the great industrial city of Bombay, thus enabling it to overcome the handicap imposed by the absence of coal in its vicinity. Another important hydro-electric venture is the Mandi scheme in the Punjab, which area also suffers from a deficiency of coal. This scheme when completed is expected to supply power to a very large number of industrial centres, including distant places like Delhi.

The foregoing survey reveals the rich and varied character of India's natural resources. It is a commonplace remark that while nature has showered her bounties on the country with a liberal hand, man in India has failed to profit adequately by them, so that the contrast between

the bounties of nature and poverty of man is very striking.

QUESTIONS

1. Consider India's advantages and disadvantages in respect of geographical location.
2. Describe the principal natural regions of India and emphasize their characteristic features.
3. Show the vital importance of rainfall to economic life in India. Describe briefly the course of the monsoon in India.
4. Give a classification of the soils in India.
5. Describe the principal minerals mined in India and indicate their distribution.
6. Indicate the economic potentialities of forests in India.
7. Explain the part played by the vegetable and animal resources in the national economy of India.
8. What are the principal sources of power available in India? Consider in this connexion the possibilities of hydro-electric development.

Appendix II

TRADE AND PRODUCTS OF THE PRINCIPAL COUNTRIES OF THE WORLD ¹

§1. Scope of the appendix. By examining the position of some of the principal countries of the world in international trade the student will gain some idea as to the importance of foreign trade in the economic life of modern civilized communities.

§2. Great Britain. We shall now proceed to consider the trade and products of the more important countries of the world : Great Britain, the U.S.A., Germany, and Japan. Great Britain enjoys certain important natural advantages which have played a very significant part in shaping her economic development. These are her indented coast line and navigable rivers, her rich coal and iron fields and the close proximity in which they occur, her temperate and moist climate, the fertility of her soil, and her favourable geographical position. In Chapter II we have already described the course and the main results of the Industrial Revolution in Great Britain, which has completely transformed her economic life, making her a great trading and industrial country, dependent upon other countries to a very great extent for the supplies of food-stuffs and essential raw materials of industry. With her own agricultural resources she can barely maintain a third of her population today, and her economic life is

¹ This survey is intended for the Punjab University Syllabus in Intermediate Economics, and is based on Chisholm and Stamp, *Handbook of Commercial Geography, Population and Resources of the World* (League of Nations, 1926) and *Statesman's Year Book* (1937).

based upon an interchange of coal, manufactured articles, shipping and other services, for food-stuffs and raw materials.

(i) *Agricultural products.*—The principal agricultural products of Great Britain are wheat, barley and oats (which are the main corn crops), beans, potatoes and turnips (grown in winter as cattle-food), mangels and hay. At present, particular attention is being paid by the Government to agricultural development (including the development of the dairy industry).

(ii) *Forests.*—The old English forests were largely destroyed by the inroads made upon them by the iron industry before coal was used for the smelting of iron. Today, less than five per cent of the total area is under forests.

(iii) *Mineral wealth.*—Great Britain is very richly endowed with some of the minerals of high industrial value, notably coal and iron. Her output of coal is very large, and a good part of it is exported. She occupies the second place in the world as regards coal production, providing about one-fifth of the total production of the world (the U.S.A. holding the first rank). Great Britain has also large deposits of iron ore which are very favourably situated in close proximity to coal areas. Both as regards iron and steel she occupies the third place in the world. Her other mineral resources are salt, limestone and fire-clay.

(iv) *Manufactures.*—Great Britain has by no means yet ceased to deserve her title of the workshop of the world. Four-fifths of her people live in industrial and commercial towns like London, Liverpool, Manchester, Birmingham, Sheffield, Glasgow, Paisley and Dundee. The greatest British industry is cotton manufactures, with Manchester as its principal centre. The woollen industry, although no longer the first industry of the nation that it once was, is of substantial importance even today. It flourishes in the West Riding of Yorkshire. Other important manufacturing industries of Great Britain are the silk industry in Derbyshire, the hosiery industry in Nottingham, coal, steel, iron, engineering and ship-building.

(v) *The foreign trade of Great Britain.*—Before the War the foreign trade of Great Britain was much greater in value than that of any other country in the world, and greater also per head than that of most other countries. The total value of her imports in 1936 was £848,935,895, while the corresponding value of her exports (including re-exports) £501,135,145.

The following are among the noticeable features of the foreign trade of Great Britain: (a) High percentage of imports of food-stuffs (wheat, maize, rice, meat, butter, eggs, sugar, fruit and nuts) to total imports. Next to food-stuffs come raw materials such as raw cotton, wool, jute, oil-seeds, raw silk, hides and skins, wood and timber, rubber; (b) High proportion of exports of manufactures to total exports and the preponderance of cotton manufactures among exported commodities, other important exports being woollen goods, artificial silk, metal goods, coal and chemicals; (c) Normal excess of imports over exports, due to some of the imports being merely the payment received by Great Britain for her invisible exports; (d) existence of a considerable amount of entrepot (or re-export) trade, i.e. trade in articles collected from many parts of the world and widely distributed in other parts. Thus Australian and South African wool is exported by Great Britain to Germany, France and the U.S.A.; raw cotton from America, Egypt and India is redistributed on the continent of Europe. This extensive entrepot trade is largely due to the central position of Great Britain.

Great Britain is experiencing increasing competition in foreign markets as also in her own market owing to the industrialization of several other countries of the world. Japan is probably the most formidable rival of Great Britain, especially in the east. The recent growth of trade barriers is adding to her difficulties in maintaining her export trade. She is therefore now trying to encourage inter-imperial trade by means of preferential tariffs adopted on a comprehensive scale as the result of the decisions reached at the Ottawa Conference of 1932.

The values of the main articles of British imports and exports (in the year 1936) are given below :

(In £1,000)

| <i>Imports</i> | | <i>Exports</i> | |
|---|---------|------------------------------------|--------|
| Grain and flour .. | 69,375 | Coal | 29,312 |
| Meat | 78,829 | Iron and steel | 35,998 |
| Other food and drink including sugar, fruits, eggs, butter, cheese, tea and wines | 200,063 | Machinery | 41,183 |
| Raw cotton | 45,782 | Cotton yarn and manufactures | 61,518 |
| Wool | 45,658 | Woollen manufactures | 32,219 |
| Wood and timber | 43,568 | Vehicles | 32,289 |
| Oil-seeds, oils, fats, etc. | 28,729 | Chemicals | 21,099 |
| Hides and skins .. | 19,520 | | |

§3. The United States of America. A study of the trade and products of the United States is of great interest since this land, which some 300 years ago was entirely unexplored, is the richest country in the world today, with an advanced agriculture, well-developed industries, and a most efficient industrial organization. Its population, which was only a few millions in the eighteenth century, now exceeds 140 million. The main circumstance that has favoured this rapid economic development of the States is their rich and abundant natural resources, freely and energetically exploited by a virile and young nationality which had already reached a high stage of civilization before it came to America. This development has been further helped by the prevalence of free trade within the huge area covered by the States. Protection also has helped, for without it development could scarcely have been so rapid. Among the natural resources of the U.S.A.

may be included the rich plains of the central region and of the west, adequate rainfall, great navigable rivers like the Mississippi, a vast seaboard, and varied mineral wealth. The central region moreover is in free and easy communication with other plains and the lowlands in the east and in the west.

(i) *Agricultural products.*—The U.S.A. is agriculturally a very important region in the world, and American agriculture, thanks to excellent natural resources, application of fertilizers, farm machinery and research, is in normal times the most important and prosperous national industry. The agricultural products of the States are numerous owing to the varied climatic regions into which the country is divided. The main products are : wheat, maize, barley, oats, tobacco, cotton, vegetables and fruits. The U.S.A. stands first in the world in respect of the production of wheat, maize, oats, cotton, cotton-seed and tobacco, and second (next to Russia) in respect of barley. Her main agricultural deficiencies are sugar, tea, coffee, jute and rubber, large quantities of which are imported into the country. The high price of labour also excludes or limits the production of some of these commodities, such as sugar and tea.

(ii) *Forests.*—Forestry is an important branch of the economic activity of the country. About 30% of the total area is under forests.

(iii) *Mineral products.*—These are, as already stated, rich and varied. The United States occupies the first position in the world as regards the output of coal, iron ore, copper ore, lead and zinc ore, petroleum, natural gas, sulphur and phosphates, other minerals being silver ore, manganese, potash and magnesite.

(iv) *Manufactures.*—The principal manufacturing industries are textiles, iron and steel, petroleum refining, motor vehicles, manufacture of rubber and machinery, and meat-packing.

(v) *Trade of the United States.*—In spite of her large inland trade and high tariff barriers the U.S.A. has extensive trading connexions with other countries, notably

with Great Britain, Germany, Canada, Cuba, France and India. The total value of her imports in 1936 was \$2,419,229,000; while the total value of the exports was \$2,416,477.

The values of the chief articles of import and export (in 1936) are given below:

(In 1,000 dollars)

| <i>Imports</i> | | <i>Exports</i> | |
|-------------------------------|---------|---------------------------|---------|
| Wood and paper .. | 249,355 | Cotton (raw) .. | 361,043 |
| Coffee .. | 133,962 | Cotton (manufactures) .. | 33,003 |
| Sugar (cane) .. | 155,399 | Petroleum and products .. | 260,846 |
| Raw hides and skins .. | 54,761 | Oils (refined) .. | 176,722 |
| Rubber (crude) and milk of .. | 158,731 | Machinery .. | 674,280 |
| Raw silk .. | 102,351 | Electrical apparatus .. | 91,345 |
| Tea .. | 17,885 | Automobiles .. | 240,205 |
| Fish .. | 30,357 | Chemicals .. | 116,902 |
| Fruits and nuts .. | 57,972 | Tobacco .. | 147,898 |
| Wood pulp .. | 82,836 | Wheat and wheat-flour .. | 19,350 |
| Jute and manufactures .. | 46,336 | Iron and steel .. | 149,810 |
| Wines and spirits .. | 75,272 | Fruit and nuts .. | 80,607 |

§4. **Germany.**¹ The great plain which occupies the north and the greater part of the east of Germany is generally infertile and poorly endowed with mineral wealth. The soil of the remainder of the realm, consisting mainly of hilly country and tablelands, is more fertile, and has a more favourable climate, richer mineral resources (coal and iron) and supports a dense population. Germany is particularly well served by a network of railways. In the plains and valleys, natural waterways (e.g. the Rhine) as well as artificial canals are of great value to the commerce

¹ Excluding Austria.

of the country, which is further promoted by excellent facilities for communication with the seaboard.

Since her political unification in the last century and her success in the Franco-German War of 1870-1, Germany's economic development has been very rapid. Other circumstances that favoured her industrial development were a policy of protective tariffs and a highly organized educational system.

(i) *Agricultural products.*—The main products are rye, wheat, barley, oats, potatoes, sugar-beet and oats. The area under crops is cultivated with careful manuring, and in point of yield Germany can bear comparison with any other country in the world. Besides protection, cheap railway transport facilities have contributed a great deal to the development of German agriculture.

(ii) *Forestry* is of great importance to the country, and is conducted by scientific methods under the care of the State. About a quarter of the total area is under forests.

(iii) *Mineral resources.*—Among the European countries Germany ranks high in respect of mineral resources, coming next after the United Kingdom in respect of total mineral production. As in Great Britain, the chief minerals are coal and iron. The principal coal basins are those of the Ruhr and the Saar in Rhineland. Other mineral resources are lignite, potash, zinc, copper and lead ores, petroleum and salt.

(iv) *Manufactures.*—Germany occupies an honourable place among the great manufacturing and commercial countries of the world. Her principal manufacturing industries are iron and steel, chemicals, beet-sugar, electrical apparatus, textiles (cotton, wool and silk), glass, porcelain, clock-making, ship-building, marine engineering, toy-making, and the coal-tar industry.

(v) *Trade of Germany.*—Germany's pre-War commercial development was most striking and her organization of commercial intelligence and service in foreign markets was the wonder and the envy of other nations. The total value of German imports was 4,217,000 marks in 1936. German exports were valued at 4,768,000 marks in the same year.

The values of the chief articles of import and export (in 1936) are given below :

(In 1,000 reichsmarks)

| <i>Imports</i> | | | <i>Exports</i> | | |
|----------------|----|---------|-------------------|----|----------------------|
| Raw cotton | .. | 207,702 | Steel and iron | .. | 729,803 ¹ |
| Wool | .. | 229,416 | Chemical products | .. | 111,029 |
| Mineral oil | .. | 169,219 | Dyes, etc. | .. | 135,092 |
| Coffee | .. | 125,730 | Coal | .. | 277,515 |
| Fruit | .. | 96,571 | Cotton goods | .. | 27,851 |
| Coal | .. | 56,904 | Silk and rayon | .. | 34,964 |
| Butter | .. | 97,703 | Woollen goods | .. | 11,714 |
| Timber | .. | 49,700 | Leather | .. | 58,333 |
| Iron ore | .. | 168,347 | Paper | .. | 80,790 |
| | | | Glassware | .. | 75,932 |
| | | | Copperware | .. | 128,963 |

§5. **Japan.** Until the sixties of the nineteenth century, Japan was a backward medieval country. Since then she has revolutionized and modernized her social, political and economic organization so that now she ranks as the foremost industrial country of Asia, and one of the leading commercial nations of the world.

Japan is an insular empire, and the entire group of the Japanese islands constitutes a highly volcanic tract. The productive area is limited by the very irregular character of the surface. Only about 30% of the total area is productive and only one-eighth of the entire surface is devoted to agriculture; but on this small area Japan supports a very dense population. The extremely irregular surface of the soil has proved a hindrance to the construction of railways and roads. Japan has, however, shown great tenacity in overcoming these difficulties. She has also built up an efficient mercantile marine of her own for carrying her increasing trade with the rest of the world. Her long broken coast-line is suited to harbour development and commercial activity.

¹ In 1935.

(i) *Agricultural products.*—Rice is the principal food crop, Japan's production of it being the second highest in the world. More than half of the total area is under rice. Other crops are wheat, barley, millets, maize, rye and soya-beans. Mulberry trees are extensively planted for the purpose of feeding silk-worms, silk being the leading export from the country.

(ii) *Forestry and fisheries.*—A little less than half the area is under forests, and wood pulp (mechanical and chemical) is an important forest product. Japan's fisheries, which are varied, offer employment to large numbers and also support a substantial proportion of the population.

(iii) *Mineral resources.*—Coal is the leading mineral in Japan, but is not sufficient for domestic use. Iron ore is found in inconsiderable quantities and much is imported, chiefly from Chinese sources which are for the most part in Japanese hands. Other minerals are petroleum, copper ore and sulphur.

(iv) *Manufactures.*—Japanese industries were, until recently, entirely of the domestic type and several of them continue to be so organized even today. Some kind of handicraft is practised in almost every Japanese household. Since the great revolution of 1868, Japan has shown great keenness to learn from the western nations. A large number of Japanese students go every year to the different countries of Europe to receive modern education. European engineers and technical experts are invited to Japan, and the lessons they have to teach are carefully learnt. The country has been equipped with modern means of communication and transport, and up-to-date machinery has been installed for textile and other manufactures. The first steamship company in Japan was established in 1874; and Japanese vessels can now be seen in all waters (including the Chinese rivers). The principal Japanese industries are cotton-spinning and weaving, silk and artificial silk, woollen manufactures, the match industry, electrical machinery, iron and steel, and paper manufacture. Japan specializes in artistic products made of wood, bamboo, silk, lace, silver and ivory.

(v) *Trade of Japan.*—The total value of Japanese

imports was 2,763,681,000 yens in 1936. The value of exports was 2,692,976,000 yens in the same year.

The values of the chief articles of import and export of Japan in 1936 are given below :

(In 1,000 yens)

| <i>Imports</i> | | | <i>Exports</i> | | |
|----------------------|---------|--|---------------------|---------|--|
| Raw cotton | 850,452 | | Rayon cloth | 128,260 | |
| Wool | 200,898 | | Raw silk | 387,032 | |
| Wrought iron | 192,040 | | Cotton yarn | 35,873 | |
| Machinery | 91,184 | | Silk tissue | 77,441 | |
| Mineral oil | 129,688 | | Cotton tissue | 496,097 | |
| Wheat | 33,651 | | Knitted goods | 50,266 | |
| Oil-cake | 35,790 | | Potteries | 42,735 | |
| Beans and peas | 82,601 | | Paper | 23,085 | |
| Sugar | 20,928 | | Toys | 33,852 | |
| Crude rubber | 72,957 | | Machinery | 63,856 | |
| Pulp | 67,107 | | Glass | 23,337 | |

QUESTIONS

1. Mention the principal products of Great Britain and explain the part played by them in her national economy.
2. What are the chief imports and exports of Great Britain?
3. Explain the circumstances that have favoured the rapid economic development of the United States.
4. Enumerate the chief imports and exports of the U.S.A.
5. Compare the natural resources of Germany with those of Great Britain.
6. What are the principal manufacturing industries in Germany? Account for her rapid industrial development.
7. Mention the leading imports and exports of Germany.
8. Give an idea of the natural resources and physical features of Japan.
9. 'Japan now ranks as the foremost industrial country of Asia and one of the leading commercial nations of the world.' Discuss.
10. Mention the principal manufacturing industries in Japan, and indicate the part played by cottage industries in her economic life.
11. Name the main items of Japan's import and export trade.

(i) *Agricultural products.*—Rice is the principal food crop, Japan's production of it being the second highest in the world. More than half of the total area is under rice. Other crops are wheat, barley, millets, maize, rye and soya-beans. Mulberry trees are extensively planted for the purpose of feeding silk-worms, silk being the leading export from the country.

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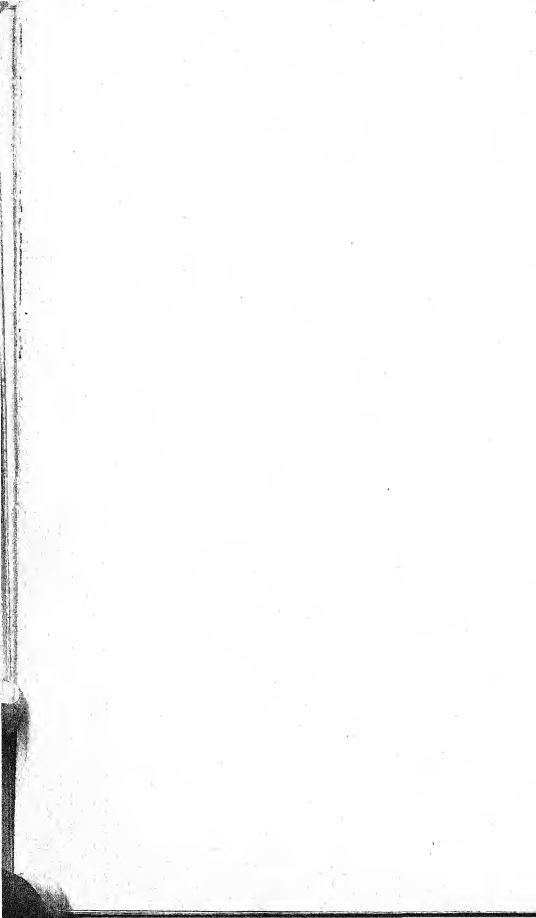
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| Beans and peas | 82,601 | | Paper | 23,085 | |
| Sugar | 20,928 | | Toys | 33,852 | |
| Crude rubber | 72,957 | | Machinery | 63,856 | |
| Pulp | 67,107 | | Glass | 23,337 | |

QUESTIONS

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2. What are the chief imports and exports of Great Britain?
3. Explain the circumstances that have favoured the rapid economic development of the United States.
4. Enumerate the chief imports and exports of the U.S.A.
5. Compare the natural resources of Germany with those of Great Britain.
6. What are the principal manufacturing industries in Germany? Account for her rapid industrial development.
7. Mention the leading imports and exports of Germany.
8. Give an idea of the natural resources and physical features of Japan.
9. 'Japan now ranks as the foremost industrial country of Asia and one of the leading commercial nations of the world.' Discuss.
10. Mention the principal manufacturing industries in Japan, and indicate the part played by cottage industries in her economic life.
11. Name the main items of Japan's import and export trade.



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